

ELHILO 10./660475 10/26/04 Page 1

=> FILE REG
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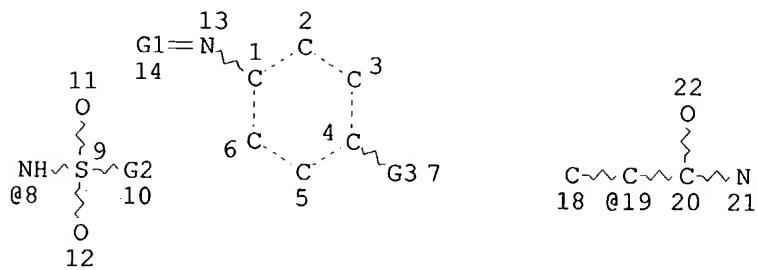
=> FILE HCAPL
FILE 'HCAPLUS' ENTERED AT 15:28:28 ON 26 OCT 2004
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FILE COVERS 1907 - 26 Oct 2004 VOL 141 ISS 18
FILE LAST UPDATED: 25 Oct 2004 (20041025/ED)

This file contains CAS Registry Numbers for easy and accurate
substance identification.

=> D QUE
L78 STR



C~C~CN
15 @16 17

1335 structures from
The query

VAR G1=16/19/CY
VAR G2=AK/CY
VAR G3=OH/8
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RSPEC I

NUMBER OF NODES IS 22

STEREO ATTRIBUTES: NONE

L80 SCR 1599

L82 1335 SEA FILE=REGISTRY SSS FUL L78 AND L80

L83 2080 SEA FILE=HCAPLUS ABB=ON L82

L84 44 SEA FILE=HCAPLUS ABB=ON L83(L) (HAIR OR KERAT?)

=> D L84 1-44 BIB ABS IND HITSTR

L84 ANSWER 1 OF 44 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 2004:781935 HCAPLUS

DN 141:282410

TI Hair dye compositions containing direct dyes having dissociating groups

IN Kawagishi, Toshio; Dominic, Pratt

PA Kao Corp., Japan; Fuji Photo Film Co., Ltd.

SO Jpn. Kokai Tokkyo Koho, 38 pp.

CODEN: JKXXAF

DT Patent

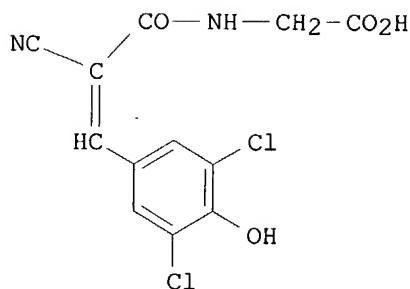
LA Japanese

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI JP 2004262888	A2	20040924	JP 2003-56768	20030304
PRAI JP 2003-56768		20030304		

GI



I

AB The hair dye compns. contain direct dyes DYE-(L)_n-DIS (DYE = residue of dye having dissociating H atom in chromophore and maximum absorption at 400-700 nm in dissociated state; L = divalent linking group; n = 0, 1, 2; DIS = dissociating group). Goat hair was dyed well with a hair dye foam composition (pH 8.5) containing a direct dye I 0.5, monoethanolamine 1, EtOH 15, propylene glycol 10, polyoxyethylene octyldodecyl ether 10, polyoxyethylene tridecyl ether 9, oleic acid diethanolamide 8, oleyl alc. 2, NH4Cl, LPG 10, and H2O to 100 weight% showed good color fastness to shampooing.

IC ICM A61K007-13

CC 62-3 (Essential Oils and Cosmetics)

ST hair direct dye color fastness

IT Dyes
(direct; hair dye compns. containing direct dyes having dissociating groups)

IT Hair preparations
(dyes; hair dye compns. containing direct dyes having dissociating groups)

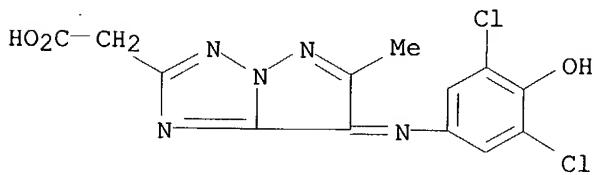
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760191-20-6 760191-21-7 760191-22-8 760191-23-9
760191-24-0 760191-25-1 760191-26-2

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(hair dye compns. containing direct dyes having dissociating groups)

IT **760191-20-6**
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(hair dye compns. containing direct dyes having dissociating groups)

RN 760191-20-6 HCAPLUS

CN 7H-Pyrazolo[1,5-b][1,2,4]triazole-2-acetic acid, 7-[(3,5-dichloro-4-hydroxyphenyl)imino]-6-methyl- (9CI) (CA INDEX NAME)



L84 ANSWER 2 OF 44 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 2004:529213 HCAPLUS
DN 141:93968
TI Hair dyeing compositions containing a monoheteroyldiarylmethane direct dye or its leuco precursor
IN Guerin, Frederic; Lagrange, Alain
PA L'oreal, Fr.

SO Fr. Demande, 74 pp.

CODEN: FRXXBL

DT Patent

LA French

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	FR 2849373	A1	20040702	FR 2002-16851	20021230
	EP 1435227	A1	20040707	EP 2003-104982	20031226
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
	JP 2004210781	A2	20040729	JP 2003-434419	20031226
PRAI	FR 2002-16851	A	20021230		
OS	MARPAT 141:93968				
AB	Hair dyeing compns. comprise a direct monoheteroyldiarylmethane dye and its leuco precursors. Thus, a formulation contained N-[4-[(4-(diethylamino)phenyl)(4-oxo-4H-1-benzopyran-3-yl)methylene]-2,5-cyclohexadien-1-ylidene]-N-ethylethanaminium perchlorate 0.553, oleic diethanolamide 3, lauric acid 1, ethylene glycol monoethyl ether 5, hydroxyethyl cellulose 2, 2-amino-2-methyl-1-propanol 9.5, and water qs to 100 g. chloride 0.56, benzyl alc. 4.0, PEG 6.0, hydroxyethyl cellulose 0.7, alkyl polyglucoside 4.5, phosphate buffer 7, and water qs to 100 g.				
IC	ICM A61K007-13				
CC	62-3 (Essential Oils and Cosmetics)				
ST	monoheteroyldiarylmethane direct dye hair				
IT	Azo dyes				
	(acid; hair dyeing compns. containing monoheteroyldiarylmethane direct dye or its leuco precursor)				
IT	Phenols, biological studies				
	RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)				
	(amino; hair dyeing compns. containing monoheteroyldiarylmethane direct dye or its leuco precursor)				
IT	Azo dyes				
	Dyes				
	(cationic; hair dyeing compns. containing monoheteroyldiarylmethane direct dye or its leuco precursor)				
IT	Amines, biological studies				
	RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)				
	(diamines, aromatic; hair dyeing compns. containing monoheteroyldiarylmethane direct dye or its leuco precursor)				
IT	Dyes				
	(direct; hair dyeing compns. containing monoheteroyldiarylmethane direct dye or its leuco precursor)				
IT	Hair preparations				
	(dyes; hair dyeing compns. containing monoheteroyldiarylmethane direct dye or its leuco precursor)				
IT	Anthraquinone dyes				
	Azo dyes				
	Hair				
	Human				
	Oxidizing agents				
	(hair dyeing compns. containing monoheteroyldiarylmethane direct dye or its leuco precursor)				
IT	Bromates				
	Peroxy acids				
	Peroxysulfates				
	RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)				
	(hair dyeing compns. containing monoheteroyldiarylmethane direct dye or its				

leuco precursor)

IT Dyes
(indamine; hair dyeing compns. containing monoheteroyldiaryl methane direct dye or its leuco precursor)

IT Group IIIA element compounds
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(perborates; hair dyeing compns. containing monoheteroyldiaryl methane direct dye or its leuco precursor)

IT Carboxylic acids, biological studies
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(peroxy; hair dyeing compns. containing monoheteroyldiaryl methane direct dye or its leuco precursor)

IT Amines, biological studies
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(phenolic; hair dyeing compns. containing monoheteroyldiaryl methane direct dye or its leuco precursor)

IT Amines, biological studies
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(phenylalkyl, diamines; hair dyeing compns. containing monoheteroyldiaryl methane direct dye or its leuco precursor)

IT Enzymes, biological studies
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(unicaise; hair dyeing compns. containing monoheteroyldiaryl methane direct dye or its leuco precursor)

IT 95-55-6D, o-Aminophenol, derivs. 95-70-5, p-Toluenediamine 106-50-3, p-Phenylenediamine, biological studies 106-50-3D, p-Phenylenediamine, derivs. 108-45-2D, m-Phenylenediamine, derivs. 108-46-3D, Resorcinol, derivs. 123-30-8, p-Aminophenol 123-30-8D, p-Aminophenol, derivs. 124-43-6 591-27-5D, m-Aminophenol, derivs. 2835-95-2, 5-Amino-2-methylphenol 3486-48-4 3737-88-0 3737-89-1 3737-91-5 3810-38-6 6411-50-3 6735-60-0 6837-66-7 7722-84-1, Hydrogen peroxide, biological studies 9003-99-0, Peroxidase 9035-73-8, Oxidase 9037-29-0, Oxygenase 10231-59-1 13158-70-8 13158-71-9 13158-72-0 13158-73-1 15081-86-4 15082-04-9 17329-99-6 17330-00-6 17330-03-9 17330-04-0 18198-28-2 18198-29-3 18198-30-6 18198-31-7 22179-00-6 22179-01-7 22196-95-8 23266-29-7 23266-30-0 23266-31-1 23266-32-2 23266-33-3 23266-34-4 23266-35-5 23266-36-6 23297-28-1 23335-34-4 23642-27-5 25361-34-6 26345-38-0 32982-64-2 33609-83-5 34762-92-0 36525-76-5 37111-44-7 38213-80-8 38557-41-4 38557-42-5 38557-43-6 38557-44-7 38557-45-8 40683-08-7 40683-09-8 40683-10-1 40683-11-2 40683-12-3 40739-75-1 41573-35-7 42297-76-7 42297-77-8 42297-78-9 42297-79-0 42297-80-3 42297-81-4 42297-82-5 42297-83-6 42443-53-8 47334-92-9 47334-93-0 47334-95-2 47433-65-8 47433-66-9 47569-88-0 47571-92-6 47615-09-8 47645-26-1 47646-24-2 47699-20-7 47699-21-8 47700-01-6 47701-02-0 47725-05-3 47742-10-9 47742-82-5 47789-57-1 47791-05-9 47816-91-1 48230-04-2 48237-01-0 49716-03-2 50548-08-8 50584-48-0 50904-51-3 50904-52-4 50904-53-5 50904-54-6 51107-46-1 51107-47-2 54111-86-3 54117-49-6 54117-50-9 54117-51-0 54117-52-1 54117-53-2 54117-54-3 55302-96-0, 5-N-(β -Hydroxyethyl)amino-2-methyl phenol 56413-28-6 56413-29-7 56413-30-0 56413-31-1 56413-32-2 56413-33-3 56413-34-4 56413-35-5 56413-36-6 56413-37-7 56413-38-8 56413-39-9 56523-96-7 56523-97-8 56523-98-9 56524-08-4 56524-09-5 56524-10-8 56524-11-9 57693-25-1 57693-26-2 57877-71-1 61578-24-3 61578-25-4 61578-26-5 61937-91-5 61938-02-1 61938-03-2 72828-90-1 74386-17-7 74567-64-9 79377-85-8 79377-91-6 79377-92-7

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RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
 (hair dyeing compns. containing monoheteroyldiarylmethane direct
 dye or its leuco precursor)

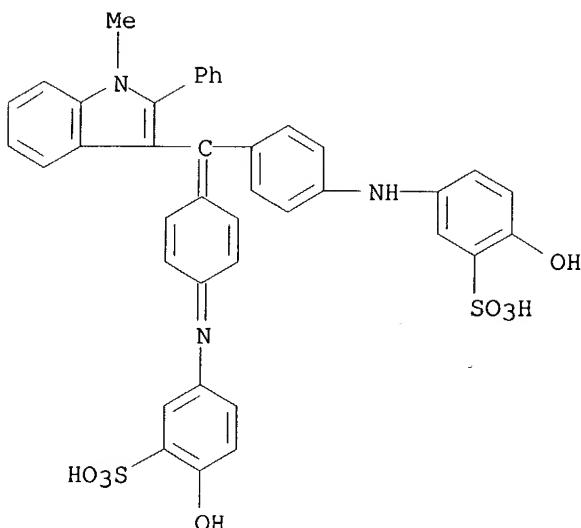
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 717137-96-7

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
 (hair dyeing compns. containing monoheteroyldiarylmethane direct dye or its
 leuco precursor)

IT **37111-44-7**
 RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
 (hair dyeing compns. containing monoheteroyldiarylmethane direct
 dye or its leuco precursor)

RN 37111-44-7 HCPLUS

CN Benzenesulfonic acid, 2-hydroxy-5-[[4-[[4-[(4-hydroxy-3-
 sulfophenyl)amino]phenyl](1-methyl-2-phenyl-1H-indol-3-yl)methylene]-2,5-
 cyclohexadien-1-ylidene]amino]- (9CI) (CA INDEX NAME)



RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L84 ANSWER 3 OF 44 HCAPLUS COPYRIGHT 2004 ACS on STN
 AN 2004:510123 HCAPLUS
 DN 141:59182
 TI Compositions containing a direct dye and a specific polymer for coloring of hair fibers
 IN Guerin, Frederic; Samain, Henri
 PA L'oreal, Fr.
 SO Eur. Pat. Appl., 15 pp.
 CODEN: EPXXDW
 DT Patent
 LA French
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1430876	A1	20040623	EP 2003-293258	20031219
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK FR 2848834	A1	20040625	FR 2002-16205	20021219
PRAI	FR 2002-16205	A	20021219		
AB	Compns. contain a direct dye and a specific polymer for coloring of hair fibers. The compns. comprise a direct dye, a water-soluble polymer, and an agent for increasing the viscosity.				
IC	ICM A61K007-13				
CC	62-3 (Essential Oils and Cosmetics)				
ST	hair direct dye polymer viscosity enhancer				
IT	Alcohols, biological studies RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses) (C1-4; compns. containing direct dye and polymer for coloring of hair fibers)				
IT	Ketones, biological studies RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses) (C3-4; compns. containing direct dye and polymer for coloring of hair fibers)				
IT	Alkanes, biological studies				

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(C5-10; compns. containing direct dye and polymer for coloring of hair
fibers)

IT Phenols, biological studies
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(amino, dyes; compns. containing direct dye and polymer for coloring of
hair fibers)

IT Surfactants
(amphoteric; compns. containing direct dye and polymer for coloring of hair
fibers)

IT Polyelectrolytes
Surfactants
(anionic; compns. containing direct dye and polymer for coloring of hair
fibers)

IT Dyes
(azomethine; compns. containing direct dye and polymer for coloring of hair
fibers)

IT Dyes
Polyelectrolytes
Surfactants
(cationic; compns. containing direct dye and polymer for coloring of hair
fibers)

IT Antioxidants
Azo dyes
Dispersing agents
Electrolytes
Fluorescent dyes
Human
Opacifiers
Perfumes
Polyelectrolytes
Preservatives
Sequestering agents
Solvents
Surfactants
Thickening agents
Viscosity
(compns. containing direct dye and polymer for coloring of hair fibers)

IT Acids, biological studies
Alkali metal hydroxides
Polymers, biological studies
Tannins
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(compns. containing direct dye and polymer for coloring of hair fibers)

IT Hair preparations
(conditioners; compns. containing direct dye and polymer for coloring of
hair fibers)

IT Hair preparations
(creams; compns. containing direct dye and polymer for coloring of hair
fibers)

IT Dyes
(direct; compns. containing direct dye and polymer for coloring of hair
fibers)

IT Phenols, biological studies
Porphyrins
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(dyes; compns. containing direct dye and polymer for coloring of hair
fibers)

IT Hair preparations

(gels; compns. containing direct dye and polymer for coloring of hair fibers)

IT Hair preparations
(lotions; compns. containing direct dye and polymer for coloring of hair fibers)

IT Phenols, biological studies
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(naphthols, dyes; compns. containing direct dye and polymer for coloring of hair fibers)

IT Surfactants
(nonionic; compns. containing direct dye and polymer for coloring of hair fibers)

IT Amines, biological studies
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(phenolic, dyes; compns. containing direct dye and polymer for coloring of hair fibers)

IT Carboxylic acids, biological studies
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(polycarboxylic, salts; compns. containing direct dye and polymer for coloring of hair fibers)

IT Carboxylic acids, biological studies
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(polycarboxylic; compns. containing direct dye and polymer for coloring of hair fibers)

IT Alcohols, biological studies
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(polyhydric, ethers; compns. containing direct dye and polymer for coloring of hair fibers)

IT Phenols, biological studies
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(polyphenols, nonpolymeric; compns. containing direct dye and polymer for coloring of hair fibers)

IT Hair preparations
(sprays; compns. containing direct dye and polymer for coloring of hair fibers)

IT Polymers, biological studies
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(water-soluble; compns. containing direct dye and polymer for coloring of hair fibers)

IT 64-19-7D, Acetic acid, C1-4 alkyl esters 69-72-7, o-Hydroxybenzoic acid, biological studies 72-48-0, Alizarin 79-06-1D, Acrylamide, polymers 79-10-7D, Acrylic acid, polymers 81-48-1, Solvent Violet 13 81-54-9, Purpurin 82-33-7 83-72-7, Lawsone 85-23-4, Spinulosin 87-66-1, Pyrogallol 87-69-4, Tartaric acid, biological studies 88-99-3, Phthalic acid, biological studies 91-56-5, Isatin 92-31-9, Basic Blue 17 96-91-3, 2-Amino-4,6-dinitrophenol 99-06-9, m-Hydroxybenzoic acid, biological studies 99-56-9, 1,2-Diamino-4-nitrobenzene 99-57-0, 2-Amino-4-nitrophenol 99-96-7, p-Hydroxybenzoic acid, biological studies 100-51-6, Benzyl alcohol, biological studies 108-46-3, Resorcinol, biological studies 110-71-4 116-85-8, Disperse Red 15 121-88-0, 2-Amino-5-nitrophenol 124-04-9, Adipic acid, biological studies 128-95-0, Disperse Violet 1 139-85-5, Protocatechuic aldehyde 144-62-7, Oxalic acid, biological studies 149-91-7, Gallic acid, biological studies 299-27-4, Potassium Gluconate 458-37-7, Curcumin 477-73-6, Basic Red 2 481-39-0, Juglone 526-95-4, Gluconic acid 526-95-4D, Gluconic acid, salts 527-07-1, Sodium Gluconate 548-62-9, Basic Violet 3 569-77-7, Purpurogallin 587-98-4, Acid Yellow 36 610-81-1, 4-Amino-3-nitrophenol 632-99-5, Basic Violet 14 633-03-4,

Basic Green 1 633-96-5, Acid Orange 7 1064-48-8, Acid Black 1 1151-98-0, Apigenidin 1220-94-6, Disperse Violet 4 1260-17-9, Carminic acid 1320-07-6, Acid Orange 24 1694-09-3, Acid Violet 49 1934-21-0, Acid Yellow 23 2390-60-5, Basic Blue 7 2475-45-8, Disperse Blue 1 2475-46-9, Disperse Blue 3 2580-56-5, Basic Blue 26 2706-28-7, Acid Yellow 9 2871-01-4 2872-48-2, Disperse Red 11 3179-89-3, Disperse Red 17 3179-90-6, Disperse Blue 7 3486-30-4, Acid Blue 7 3567-66-6, Acid Red 33 4368-56-3, Acid Blue 62 4430-18-6, Acid Violet 43 4926-55-0 5307-14-2, 1,4-Diamino-2-nitrobenzene 6358-09-4 6441-93-6 6472-57-7, Acid Blue 91 6915-15-7, Malic acid 9003-06-9, Acrylic acid-Acrylamide copolymer 10442-83-8 12217-41-3, Basic Blue 22 12221-52-2, Basic Red 22 13556-29-1 18499-92-8, Kermesic acid 19222-41-4, Ammonium Gluconate 20721-50-0, Disperse Black 9 22036-97-1 22366-99-0 23946-41-0 24905-87-1 26381-41-9, Basic Brown 16 26590-05-6, Acrylamide-diallyldimethylammonium chloride copolymer 29705-39-3 33229-34-4 47569-30-2 50610-28-1 52136-23-9 52136-25-1 52551-67-4 56330-88-2 56932-44-6 56932-45-7 59820-43-8 59820-63-2 65235-31-6 66095-81-6 **66612-11-1** 66612-19-9 68123-13-7, Basic Blue 99 68259-00-7 68391-30-0, Basic Red 76 68391-31-1, Basic Yellow 57 68651-46-7, Indigo 69418-26-4 74153-51-8 77061-58-6 80062-31-3 81612-54-6 82576-75-8 84041-77-0 86419-68-3 97404-02-9 99788-75-7 104333-00-8 104516-93-0 108388-79-0 131657-78-8 141973-33-3 154442-49-6 176742-32-8, Basic Brown 17 359868-06-7 360069-60-9, C.I. Disperse Violet 15 708270-17-1

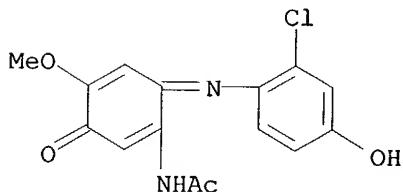
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(compns. containing direct dye and polymer for coloring of hair fibers)

IT **66612-11-1**

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(compns. containing direct dye and polymer for coloring of hair fibers)

RN 66612-11-1 HCPLUS

CN Acetamide, N-[6-[(2-chloro-4-hydroxyphenyl)imino]-4-methoxy-3-oxo-1,4-cyclohexadien-1-yl]- (9CI) (CA INDEX NAME)



L84 ANSWER 4 OF 44 HCPLUS COPYRIGHT 2004 ACS on STN

AN 2004:291168 HCPLUS

DN 140:308967

TI Two-component hair dye compositions containing dissociable direct dyes
IN Pratt, Dominic; Kawagishi, Toshio

PA Kao Corp., Japan; Fuji Photo Film Co., Ltd.

SO Jpn. Kokai Tokkyo Koho, 21 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

PATENT NO.

KIND

DATE

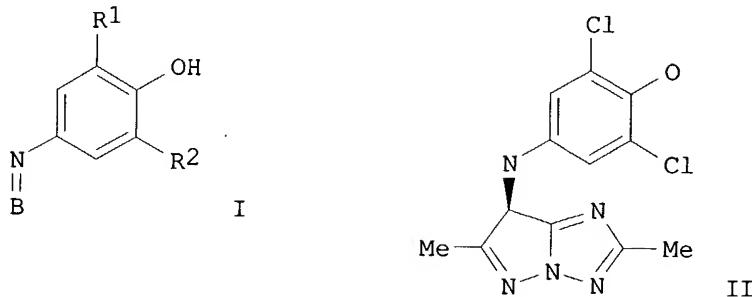
APPLICATION NO.

DATE

PI JP 2004107223
 PRAI JP 2002-269182
 OS MARPAT 140:308967
 GI

A2 20040408
 20020913

JP 2002-269182
 20020913



AB The compns., which give long-lasting bright color to hair, do not stain skin, and also have bleaching effect, comprise a 1st agent containing dissociable direct dyes I [R1, R2 = H, C1-5 alkyl, acylamino, alkylsulfonylamino, electron-withdrawing group; B = condensed azoles Q1-Q4; Za, Zb, Zc, Z1, Z2, Z3 = N, CR5:; Zb and/or Zc = CR5:; Z1, Z2, and/or Z3 = N; R3-R5 = H, halo, (un)substituted C1-5 alkyl, C1-4 alkoxy, C1-4 alkylthio, arylthio, heteroarylthio, SCH2Ph, (un)substituted acyl, etc.] or their salts and alkaline agents and a 2nd agent containing oxidizing agents. A composition (pH 10) containing a dissociative dye II, aqueous NH3, HOCH2CH2NH2, and additives was mixed with an oxidizing agent containing H2O2 and applied to a goat hair at 30°. The hair was let stand for 30 min, shampooed, and dried to be dyed well.

IC ICM A61K007-13
 ICS D06P003-08

CC 62-3 (Essential Oils and Cosmetics)

ST two component hair dye dissociative direct dye; anilideneypyrazolotriazole
 two component bleaching hair dye; hydroxyaniline triazolopyrazolylidene
 two component bleaching hair dye

IT Dyes
 (direct; two-component hair dye compns. containing dissociable direct dyes in alkaline agents which have bleaching effect and give long-lasting bright color)

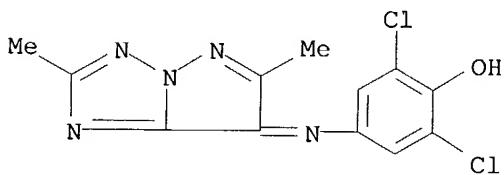
IT Hair preparations
 (dyes; two-component hair dye compns. containing dissociable direct dyes in alkaline agents which have bleaching effect and give long-lasting bright color)

IT 7722-84-1, Hydrogen peroxide, biological studies **460988-76-5**
460988-77-6
 RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
 (two-component hair dye compns. containing dissociable direct dyes in alkaline agents which have bleaching effect and give long-lasting bright color)

IT **460988-76-5 460988-77-6**
 RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
 (two-component hair dye compns. containing dissociable direct dyes in alkaline agents which have bleaching effect and give long-lasting bright color)

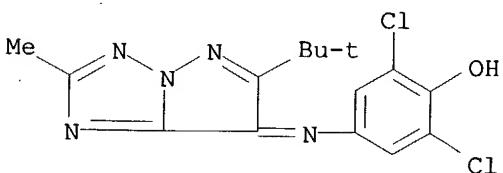
RN 460988-76-5 HCPLUS

CN Phenol, 2,6-dichloro-4-[(2,6-dimethyl-7H-pyrazolo[1,5-b][1,2,4]triazol-7-ylidene)amino]- (9CI) (CA INDEX NAME)



RN 460988-77-6 HCAPLUS

CN Phenol, 2,6-dichloro-4-[(6-(1,1-dimethylethyl)-2-methyl-7H-pyrazolo[1,5-b][1,2,4]triazol-7-ylidene)amino]- (9CI) (CA INDEX NAME)



L84 ANSWER 5 OF 44 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 2004:211990 HCAPLUS

DN 140:258599

TI Preparation of hair dye compositions

IN Pratt, Dominic; Kawagishi, Toshio

PA Kao Corporation, Japan; Fuji Photo Film Co., Ltd.

SO Eur. Pat. Appl., 26 pp.

CODEN: EPXXDW

DT Patent

LA English

FAN.CNT 1

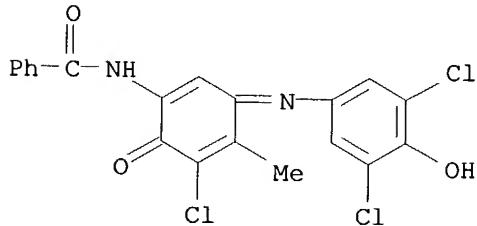
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1398021	A1	20040317	EP 2003-20453	20030912
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
	JP 2004107222	A2	20040408	JP 2002-269172	20020913
	US 2004139560	A1	20040722	US 2003-660475	20030912

PRAI JP 2002-269172

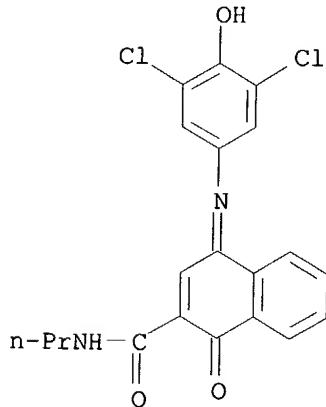
OS MARPAT 140:258599

AB A hair dye composition contains a dissociative direct dye. The hair dye composition is capable of strongly dyeing the hair with a vivid color tone without causing decomposition of the dye during the dyeing process, and exhibits excellent resistance against sunlight, hair washing, perspiration, friction and heat, and has a high stability against an alkali and an oxidizing agent, has a high dyeing property, and shows less color fade over time. N-propyl-1-hydroxy-2-naphthamide was treated with 2,6-dichloroquinone-4-chloroimide in the presence of triethylamine followed by further treatment with dilute HCl in MeCN to give a dye. Thus, a hair dye formulation contained a dye 0.5, monoethanolamine 1, EtoH 15, propylene glycol 10, PEG octyl dodecyl ether 10, PEG tridecyl ether 9, oleic diethanolamide 8, oleyl alc. 2, ammonium chloride qs, LPG 10, and water qs to 100%.

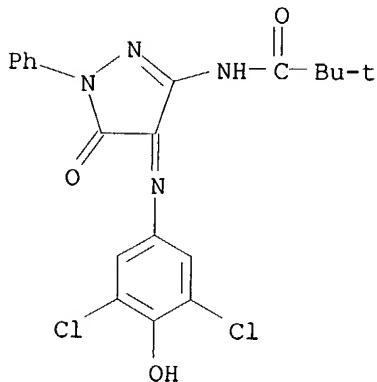
IC ICM A61K007-13
CC 62-3 (Essential Oils and Cosmetics)
Section cross-reference(s): 28
ST hair dye direct prepn
IT Dyes
(direct; preparation of hair dye compns.)
IT Hair preparations
(dyes; preparation of hair dye compns.)
IT Oxidizing agents
(preparation of hair dye compns.)
IT **670224-72-3P 670224-73-4P 670224-74-5P**
670224-75-6P
RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of hair dye compns.)
IT 101-38-2 3743-14-4 5930-28-9 35310-91-9 56278-50-3,
2-Benzothiazoleacetonitrile 670224-76-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of hair dye compns.)
IT **670224-72-3P 670224-73-4P 670224-74-5P**
RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of hair dye compns.)
RN 670224-72-3 HCPLUS
CN Benzamide, N-[5-chloro-3-[(3,5-dichloro-4-hydroxyphenyl)imino]-4-methyl-6-oxo-1,4-cyclohexadien-1-yl]- (9CI) (CA INDEX NAME)



RN 670224-73-4 HCPLUS
CN 2-Naphthalene carboxamide, 4-[(3,5-dichloro-4-hydroxyphenyl)imino]-1,4-dihydro-1-oxo-N-propyl- (9CI) (CA INDEX NAME)



RN 670224-74-5 HCAPLUS
 CN Propanamide, N-[4-[(3,5-dichloro-4-hydroxyphenyl)imino]-4,5-dihydro-5-oxo-1-phenyl-1H-pyrazol-3-yl]-2,2-dimethyl- (9CI) (CA INDEX NAME)



RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L84 ANSWER 6 OF 44 HCAPLUS COPYRIGHT 2004 ACS on STN
 AN 2003:950811 HCAPLUS
 DN 140:8458
 TI Hair permanent wave preparations containing protein disulfide isomerase, hair dyes and conditioning agents especially thiol-or disulfide group-including compounds
 IN Kleen, Astrid; Meinigke, Bernd; Saettler, Andreas; Howorka, Wilfried; Suenger, Georg
 PA Henkel Kommanditgesellschaft auf Aktien, Germany
 SO PCT Int. Appl., 59 pp.
 CODEN: PIXXD2
 DT Patent
 LA German

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2003099242	A1	20031204	WO 2003-EP5276	20030520
	W: JP, US				
	RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR				
	DE 10224248	A1	20031211	DE 2002-10224248	20020529
	DE 10224249	A1	20031211	DE 2002-10224249	20020529
PRAI	DE 2002-10224248	A	20020529		
	DE 2002-10224249	A	20020529		
AB	The invention relates to a method for the enzymic treatment of keratin fibers, in particular human hair, using cosmetic agents that contain the enzyme protein disulfide isomerase. The invention also relates to the agent containing said enzyme that is used in the method and to the use thereof for maintaining keratin fibers and/or for permanently shaping said fibers. The formulations contain keratin-reducing agents, complexing agents, surfactants, direct dyes, conditioners, agents to set pH 4-9, preferably 7.3-7.7. The formulations further contain thiol-or disulfide group-including hair dyes. Thus dinitrophenyl and nitrophenyl dyes were coupled with cysteamine to form disulfide bridge-containing dyes. Permanent				

wave dyeing formulation was prepared from (a) a buffer solution composed of (g): sodium monohydrogen phosphate 8.366, EDTA-sodium salt 1.750; DL-dithiothreitol 0.154; acetic acid to pH 7.5; water to 100; (b) 0.00357 g solution containing protein disulfide isomerase (10% active substance) in 10 mL of buffer (a) to result Solution 1; 18.8 mL of the buffer was mixed with solution 1 to result the enzyme-containing application solution; (c) dye (Solution 2) containing (g): tetrasodium 2,2'-[dithiobis(p-phenyleneazo)]bis[8-amino-1-hydroxy-3,6-naphthalenedisulfonate] 2.008; sodium monohydrogen phosphate 1.673; EDTA-sodium 0.351; acetic acid to pH 7.5; water to 200; 20 mL of Solution 1 and 20 mL of Solution 2 were applied on exptl. hair.

IC ICM A61K007-06
ICS A61K007-09
CC 62-3 (Essential Oils and Cosmetics)
ST hair permanent wave prepns protein disulfide isomerase dye conditioner
IT Hair preparations
(conditioners; hair permanent wave prepns. containing protein disulfide isomerase, hair dyes and conditioning agents especially thiol-or disulfide group-including compds.)
IT Dyes
(direct; hair permanent wave prepns. containing protein disulfide isomerase, hair dyes and conditioning agents especially thiol-or disulfide group-including compds.)
IT Azo dyes
(disulfide group containing; hair permanent wave prepns. containing protein disulfide isomerase, hair dyes and conditioning agents especially thiol-or disulfide group-including compds.)
IT Nitro compounds
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(dyes, disulfide group containing; hair permanent wave prepns. containing protein disulfide isomerase, hair dyes and conditioning agents especially thiol-or disulfide group-including compds.)
IT Reducing agents
(for keratin; hair permanent wave prepns. containing protein disulfide isomerase, hair dyes and conditioning agents especially thiol-or disulfide group-including compds.)
IT Complexing agents
Disulfide group
Human
Surfactants
Thickening agents
pH
(hair permanent wave prepns. containing protein disulfide isomerase, hair dyes and conditioning agents especially thiol-or disulfide group-including compds.)
IT Thiols (organic), biological studies
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(hair permanent wave prepns. containing protein disulfide isomerase, hair dyes and conditioning agents especially thiol-or disulfide group-including compds.)
IT Keratins
RL: COS (Cosmetic use); CPS (Chemical process); PEP (Physical, engineering or chemical process); BIOL (Biological study); PROC (Process); USES (Uses)
(hair permanent wave prepns. containing protein disulfide isomerase, hair dyes and conditioning agents especially thiol-or disulfide group-including compds.)
IT Hair preparations
(permanent wave; hair permanent wave prepns. containing protein disulfide

isomerase, hair dyes and conditioning agents especially thiol-or disulfide group-including compds.)

IT 380897-77-8
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(Palatine Chrome Green; hair permanent wave preps. containing protein disulfide isomerase, hair dyes and conditioning agents especially thiol-or disulfide group-including compds.)

IT 62649-65-4
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(as Disperse Violet 15; hair permanent wave preps. containing protein disulfide isomerase, hair dyes and conditioning agents especially thiol-or disulfide group-including compds.)

IT 84-65-1, Anthraquinone 500-85-6, Indophenol
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(derivs., disulfide group containing dyes; hair permanent wave preps. containing protein disulfide isomerase, hair dyes and conditioning agents especially thiol-or disulfide group-including compds.)

IT 88-74-4, Benzenamine, 2-nitro- 91-29-2 96-91-3, Picramic acid
96-93-5 99-56-9, 1,2-Diamino-4-nitrobenzene 100-01-6,
4-Amino-1-nitrobenzene, biological studies 116-85-8, Disperse Red 15
119-34-6, 4-Amino-2-nitrophenol 119-72-2 128-95-0, Disperse Violet 1
570-24-1, 1-Amino-2-methyl-6-nitrobenzene 606-57-5 610-81-1,
4-Amino-3-nitrophenol 632-99-5, Basic Violet 14 730-40-5, Disperse
Orange 3 1220-94-6, Disperse Violet 4 2390-60-5, Basic Blue 7
2475-45-8, Disperse Blue 1 2475-46-9, Disperse Blue 3 2580-56-5, Basic
Blue 26 2784-89-6, HC Red 1 2788-74-1, 4-Ethylamino-3-nitrobenzoic
acid 2871-01-4, HC Red 3 3179-90-6, Disperse Blue 7 3769-62-8,
Gallion 4926-55-0, HC Yellow 2 5099-39-8 5307-14-2,
1,4-Diamino-2-nitrobenzene 5610-64-0, Acid Black 52 5850-35-1, Acid
Blue 29 6086-29-9 6247-27-4, Mordant Brown 4 6285-57-0 6358-09-4
7221-27-4 10173-66-7 20721-50-0, Disperse Black 9 24905-87-1, HC Red
7 26381-41-9, Basic Brown 16 27080-42-8 31555-68-7 33229-34-4, HC
Blue 2 37318-49-3, Protein disulfide isomerase 41959-35-7
54381-08-7, HC Orange 1 56932-44-6, HC Yellow 5 57524-50-2, HC Orange
5 59320-13-7, HC Yellow 12 59820-43-8, HC Yellow 4 64993-07-3
65235-31-6 68123-13-7, Basic Blue 99 68391-30-0, Basic Red 76
68391-31-1, Basic Yellow 57 69825-83-8, 6-Nitro-2,5-diaminopyridine
77484-77-6, 3-Amino-6-methylamino-2-nitropyridine 82576-75-8, HC Violet
1 84041-77-0 92952-81-3, HC Red BN 93923-57-0 94158-13-1, HC Red
13 95576-89-9, HC Red 10 95576-92-4, HC Red 11 99610-72-7
100418-33-5 104333-00-8, HC Yellow 6 117907-43-4 131657-78-8,
2-Chloro-6-ethylamino-4-nitrophenol 132885-85-9, HC Blue 12
176742-32-8, Basic Brown 17 346593-13-3 360069-60-9, C.I. Disperse
Violet 15
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(hair permanent wave preps. containing protein disulfide isomerase, hair dyes and conditioning agents especially thiol-or disulfide group-including compds.)

IT 627906-89-2P
RL: COS (Cosmetic use); RCT (Reactant); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(hair permanent wave preps. containing protein disulfide isomerase, hair dyes and conditioning agents especially thiol-or disulfide group-including compds.)

IT 84034-79-7P 627906-90-5P
RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(hair permanent wave preps. containing protein disulfide isomerase, hair

dyes and conditioning agents especially thiol- or disulfide group-including compds.)

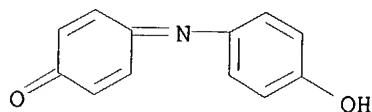
IT 118-97-8, 4-Chloro-3,5-dinitrobenzoic acid 156-57-0, Cysteamine hydrochloride 351-32-6 16904-32-8, Cysteamine dihydrochloride
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (hair permanent wave preps. containing protein disulfide isomerase, hair dyes and conditioning agents especially thiol- or disulfide group-including compds.)

IT 500-85-6, Indophenol

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
 (derivs., disulfide group containing dyes; hair permanent wave preps. containing protein disulfide isomerase, hair dyes and conditioning agents especially thiol- or disulfide group-including compds.)

RN 500-85-6 HCPLUS

CN 2,5-Cyclohexadien-1-one, 4-[(4-hydroxyphenyl)imino]- (9CI) (CA INDEX NAME)



RE.CNT 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L84 ANSWER 7 OF 44 HCPLUS COPYRIGHT 2004 ACS on STN

AN 2003:282162 HCPLUS

DN 138:292389

TI Oxidative hair dyes containing aromatic dicarbonyl compounds, other dyes and color intensifiers

IN Gross, Wibke; Oberkobusch, Doris; Hoeffkes, Horst

PA Henkel Kommanditgesellschaft Auf Aktien, Germany

SO Eur. Pat. Appl., 23 pp.

CODEN: EPXXDW

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1300134	A2	20030409	EP 2002-21429	20020925
	EP 1300134	A3	20030423		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK DE 10148843				
PRAI	DE 10148843	A1	20030410	DE 2001-10148843	20011004
OS	MARPAT 138:292389	A	20011004		
AB	The invention concerns hair dyes that contain aromatic dicarbonyl compds. and substances selected from the group of (a) CH-acids; (b) primary and secondary aromatic amines, hydroxydyes, nitrogen-containing heterocycles; further				
	the compns. can contain color intensifiers and direct dyes. Thus in a hair dyeing experiment 3 mmol 1,2,3,3-tetramethylindolinium iodide and 0.41 g sodium acetate were mixed in 30 g water; 3 mmol 4-dimethylamino-6-methyl-isophthalaldehyde were added and pH6 was set; the solution was used to dye hair; red-violet color was obtained.				
IC	ICM A61K007-13				
	ICS D06P003-14				

CC 62-3 (Essential Oils and Cosmetics)
ST oxidative hair dye arom dicarbonyl compd
IT Surfactants
 (anionic; oxidative hair dyes containing aromatic dicarbonyl compds., other dyes and color intensifiers)
IT Amines, biological studies
 Dicarbonyl compounds
 RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
 (aromatic; oxidative hair dyes containing aromatic dicarbonyl compds., other dyes and color intensifiers)
IT Amines, biological studies
 RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
 (aryl, heterocyclic; oxidative hair dyes containing aromatic dicarbonyl compds., other dyes and color intensifiers)
IT Amines, biological studies
 RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
 (aryl, secondary; oxidative hair dyes containing aromatic dicarbonyl compds., other dyes and color intensifiers)
IT Dyes
 (direct; oxidative hair dyes containing aromatic dicarbonyl compds., other dyes and color intensifiers)
IT Hair preparations
 (dyes, oxidative; oxidative hair dyes containing aromatic dicarbonyl compds., other dyes and color intensifiers)
IT Hair preparations
 (dyes; oxidative hair dyes containing aromatic dicarbonyl compds., other dyes and color intensifiers)
IT Surfactants
 (nonionic; oxidative hair dyes containing aromatic dicarbonyl compds., other dyes and color intensifiers)
IT Oxidizing agents
 (oxidative hair dyes containing aromatic dicarbonyl compds., other dyes and color intensifiers)
IT Aromatic compounds
 Heterocyclic compounds
 RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
 (oxidative hair dyes containing aromatic dicarbonyl compds., other dyes and color intensifiers)
IT Surfactants
 (zwitterionic; oxidative hair dyes containing aromatic dicarbonyl compds., other dyes and color intensifiers)
IT 50-21-5D, salts of 59-48-3, Oxindole 62-53-3, Aniline, biological studies 64-18-6D, Formic acid, salts of 64-19-7D, Acetic acid, salts of 65-49-6, 4-Aminosalicylic acid 67-52-7, Barbituric acid 71-00-1, L-Histidine, biological studies 77-92-9D, salts of 79-09-4D, Propanoic acid, salts of 79-14-1D, salts of 83-07-8, 4-Aminoantipyrine 83-30-7, 2,4,6-Trihydroxybenzoic acid 83-33-0, Indan-1-one 83-56-7, 1,5-Dihydroxynaphthalene 84-65-1D, Anthraquinone, derivs. 87-02-5 87-66-1, Pyrogallol 87-69-4D, salts of 88-21-1, 2-Aminobenzenesulfonic acid 88-74-4, 2-Nitroaniline 89-25-8, 1-Phenyl-3-methylpyrazol-5-one 89-57-6, 5-Aminosalicylic acid 89-86-1, 2,4-Dihydroxybenzoic acid 90-05-1, 2-Methoxyphenol 90-15-3, 1-Naphthol 90-20-0 91-29-2 91-95-2, 3,3',4,4'-Tetraaminodiphenyl 92-44-4, 2,3-Dihydroxynaphthalene 92-65-9 93-05-0 95-54-5, o-Phenylenediamine, biological studies 95-55-6, 2-Aminophenol 95-70-5, 2,5-Diaminotoluol 95-88-5,

4-Chlororesorcin 96-91-3, Picramic acid 96-93-5 98-37-3,
 3-Amino-4-hydroxy-benzenesulfonic acid 98-79-3, Pyrrolidone-5-carboxylic
 acid 99-05-8, 3-Aminobenzoic acid 99-07-0, 3-Dimethylaminophenol
 99-31-0, 5-Aminoisophthalic acid 99-50-3, 3,4-Dihydroxybenzoic acid
 99-56-9, 1,2-Diamino-4-nitrobenzene 99-98-9 100-01-6, 4-Nitroaniline,
 biological studies 101-54-2, N-Phenyl-1,4-phenylenediamine 101-77-9
 101-80-4, 4,4'-Diaminodiphenylether 102-32-9, 3,4-Dihydroxyphenylacetic
 acid 102-33-0 106-50-3, p-Phenylenediamine, biological studies
 107-92-6D, Butanoic acid, salts of 108-45-2, m-Phenylenediamine,
 biological studies 108-46-3, Resorcin, biological studies 108-72-5,
 1,3,5-Triaminobenzene 108-73-6, Phloroglucin 109-00-2,
 3-Hydroxypyridine 109-52-4D, Pentanoic acid, salts of 110-85-0,
 Piperazine, biological studies 110-86-1, Pyridine, biological studies
 110-89-4, Piperidine, biological studies 116-63-2 118-12-7 118-70-7,
 4,5,6-Triaminopyrimidine 118-92-3, 2-Aminobenzoic acid 119-34-6
 119-59-5, 4,4'-Diaminodiphenylsulfoxide 119-70-0, 4,4'-
 Diaminodiphenylamine-2-sulfonic acid 121-47-1, 3-Aminobenzenesulfonic
 acid 121-57-3, 4-Aminobenzenesulfonic acid 123-30-8, 4-Aminophenol
 123-31-9, Hydroquinone, biological studies 123-75-1, Pyrrolidine,
 biological studies 126-81-8 139-65-1, 4,4'-Diaminodiphenylsulfide
 141-84-4, Rhodanine 141-86-6, 2,6-Diaminopyridine 142-08-5,
 2-Hydroxypyridine 142-62-1D, Hexanoic acid, salts of 147-85-3,
 Proline, biological studies 149-91-7, Gallic acid, biological studies
 150-13-0, 4-Aminobenzoic acid 150-19-6, 3-Methoxyphenol 150-75-4,
 4-Methylaminophenol 150-76-5, 4-Methoxyphenol 156-81-0,
 2,4-Diaminopyrimidine 288-13-1, Pyrazole 288-32-4, Imidazole,
 biological studies 288-88-0, 1H-1,2,4-Triazole 452-58-4,
 2,3-Diaminopyridine 462-08-8, 3-Aminopyridine 480-66-0 488-87-9,
 2,5-Dimethylresorcin 496-73-1, 4-Methylresorcin 498-94-2,
 Piperidine-4-carboxylic acid 498-95-3, Piperidine-3-carboxylic acid
500-85-6D, Indophenol, derivs. 504-15-4 504-17-6,
 Thiobarbituric acid 504-24-5, 4-Aminopyridine 504-29-0,
 2-Aminopyridine 526-95-4D, D-Gluconic acid, salts of 533-31-3,
 3,4-Methylenedioxyphenol 533-73-3, Hydroxyhydroquinone 535-75-1,
 Piperidine-2-carboxylic acid 535-87-5, 3,5-Diaminobenzoic acid
 537-65-5, 4,4'-Diaminodiphenylamine 553-86-6, 2-Coumaranone 570-24-1,
 6-Nitro-o-toluidine 578-66-5, 8-Aminoquinoline 580-17-6,
 3-Aminoquinoline 580-22-3, 2-Aminoquinoline 582-17-2,
 2,7-Dihydroxynaphthalene 591-27-5, 3-Aminophenol 603-81-6,
 2,3-Diaminobenzoic acid 605-59-4 606-23-5, Indan-1,3-dione 606-55-3
 606-57-5, 2-Amino-1-nitronaphthalene 608-08-2, 3-Indoxyl acetate
 608-25-3, 2-Methylresorcin 608-97-9, Benzenepentamine 609-20-1
 610-74-2, 2,5-Diaminobenzoic acid 610-81-1 611-03-0,
 2,4-Diaminobenzoic acid 611-98-3, 4,4'-Diaminobenzophenone 614-16-4,
 Benzoylacetone nitrile 614-82-4, 2,4-Dihydroxyphenylacetic acid 615-66-7
 615-71-4, 1,2,4-Triaminobenzene 616-45-5, Pyrrolidone 616-47-7,
 1-Methyl-Imidazole 619-05-6, 3,4-Diaminobenzoic acid 626-64-2,
 4-Hydroxypyridine 636-25-9, 2,5-Diaminophenol 873-74-5,
 4-Aminobenzonitrile 876-87-9 934-22-5, 5-Aminobenzimidazole
 1004-74-6, 2,4,5,6-Tetraaminopyrimidine 1004-75-7, 4-Hydroxy-2,5,6-
 triaminopyrimidine 1080-74-6 1123-55-3, 7-Aminobenzothiazole
 1123-93-9, 5-Aminobenzothiazole 1125-60-6, 5-Aminoisoquinoline
 1197-55-3, 4-Aminophenylacetic acid 1455-77-2, 3,5-Diamino-1,2,4-
 triazole 1571-72-8, 3-Amino-4-hydroxy-benzoic acid 1820-80-0,
 3-Aminopyrazole 2374-03-0, 4-Amino-3-hydroxy-benzoic acid 2654-52-6
 2688-48-4, 5-Hydroxy-2-Coumaranone 2688-49-5 2785-06-0 2835-95-2,
 2-Methyl-5-aminophenol 2835-98-5 2835-99-6, 4-Amino-3-methylphenol
 2836-04-6 2845-88-7 2871-01-4 3119-93-5 3131-52-0,
 5,6-Dihydroxyindole 3158-63-2, 1,3-Dimethylthiobarbituric acid

3167-49-5, 6-Aminonicotinic acid 3204-61-3, 1,2,4,5-Tetraaminobenzene
 3240-72-0, 2,4-Dihydroxy-5,6-diaminopyrimidine 3342-78-7,
 2-Aminophenylacetic acid 3468-11-9 3769-62-8, Gallion 3812-32-6D,
 Carbonate, salts of 4318-76-7, 2,5-Diaminopyridine 4331-29-7,
 7-Aminobenzimidazole 4444-26-2, Benzenehexamine 4928-43-2,
 2-Dimethylamino-5-aminopyridine 5007-67-0, 3,3',4,4'-
 Tetraaminobenzophenone 5099-39-8 5131-58-8 5192-03-0, 5-Aminoindole
 5192-04-1, 7-Aminoindole 5192-23-4, 4-Aminoindole 5217-47-0,
 1,3-Diethylthiobarbituric acid 5260-37-7 5307-02-8, 2,5-Diaminoanisole
 5307-14-2, 1,4-Diamino-2-nitrobenzene 5318-27-4, 6-Aminoindole
 5345-47-1, 2-Aminonicotinic acid 5418-63-3 5434-20-8, 3-Aminophthalic
 acid 5466-88-6, 2H-1,4-Benzoxazin-3(4H)-one 5718-83-2,
 Rhodanine-3-acetic acid 5850-35-1, Acid Blue 29 5959-52-4 6201-65-6,
 2-Chlororesorcin 6247-27-4, Mordant Brown 4 6259-50-3 6271-44-9
 6358-09-4, 2-Amino-6-chloro-4-nitrophenol 6399-72-0 6628-04-2,
 4-Aminoquinaldine 6634-82-8 6967-12-0, 6-Aminodiazole 7218-02-2
 7336-20-1 7429-90-5D, Aluminum, derivs 7439-89-6D, Iron, derivs
 7439-93-2D, Lithium, derivs 7439-95-4D, Magnesium, derivs 7439-96-5D,
 Manganese, derivs 7440-09-7D, Potassium, derivs 7440-23-5D, Sodium,
 derivs 7440-24-6D, Strontium, derivs 7440-39-3D, Barium, derivs
 7440-48-4D, Cobalt, derivs 7440-50-8D, Copper, derivs 7440-66-6D,
 Zinc, derivs 7440-70-2D, Calcium, derivs 7575-35-1 7722-84-1,
 Hydrogen peroxide, biological studies 7749-47-5, 2-Amino-4-methoxy-6-
 methylpyrimidine 7768-28-7, 2-(2-Hydroxyethyl)-phenol 10173-66-7
 13066-97-2 13598-36-2D, Phosphonic acid, salts of 13754-19-3,
 4,5-Diaminopyrimidine 14265-44-2D, Phosphate, salts of 14268-66-7,
 3,4-Methylenedioxyaniline 14338-36-4, 3-Aminophenylacetic acid
 14808-79-8D, Sulfate, salts of 14933-76-7 16082-33-0,
 3,5-Diaminopyrazole 16214-27-0, Indan-1,2-dione 16859-86-2
 16867-03-1, 2-Amino-3-hydroxypyridine 17672-22-9 19335-11-6,
 5-Aminoindazole 20048-92-4

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
 (oxidative hair dyes containing aromatic dicarbonyl compds., other
 dyes and color intensifiers)

IT 20103-09-7 22715-34-0, 2-Hydroxy-4,5,6-triaminopyrimidine 23244-87-3,
 2,4,5-Triaminopyridine 23894-07-7 24905-87-1 26216-16-0 27841-29-8
 28020-38-4, 2,3-Diamino-6-methoxypyridine 29539-03-5,
 5,6-Dihydroxyindoline 29705-39-3 31835-64-0, 3-Amino-3'-nitrobiphenyl
 31905-57-4D, Nitrophenylenediamine, derivs. 32479-73-5,
 1,3-Diethylbarbituric acid 35490-72-3 36518-76-0 37705-82-1,
 2,4-Diaminobenzonitrile 41927-50-8 41946-53-6 42952-29-4
 43093-74-9D, Nitroaminophenol, derivs. 50610-28-1 50610-33-8
 51387-92-9 52943-88-1, 1-Phenyl-3-methyl-4,5-diaminopyrazole
 55302-96-0 55952-56-2 56932-44-6 58480-17-4 60126-36-5
 61224-35-9 61693-42-3, 3-Amino-2,4-dichlorophenol 62496-02-0,
 2-Methylamino-4,5,6-triaminopyrimidine 63969-46-0, Bis-(5-amino-2-
 hydroxyphenyl)-methane 64693-48-7 64993-07-3, 5-Amino-6-nitrobenzo-1,3-
 dioxole 66566-48-1 66635-40-3, 4,4'-Diaminostilbene dihydrochloride
 67608-58-6 67608-59-7 68391-32-2 69825-83-8, 6-Nitro-2,5-
 diaminopyridine 70643-19-5, 2,4-Diaminophenoxyethanol 71134-97-9
 77484-77-6 79352-72-0, 2-Aminomethyl-4-aminophenol 81892-72-0,
 1,3-Bis-(2,4-diaminophenoxy)-propane 82576-75-8, HC Violet 1
 83763-47-7 84540-47-6, 2,6-Dihydroxy-3,4-dimethylpyridine 84540-50-1
 85561-52-0, 1-Phenyl-4,5-diaminopyrazole 85679-78-3,
 2,6-Dimethoxy-3,5-diaminopyridine 85926-99-4, 4-Hydroxyindoline
 90817-34-8 93841-24-8 93923-57-0 95576-89-9, HC Red 10 99855-61-5
 104333-09-7, 2-Hydroxymethyl-4-aminophenol 110102-86-8 110952-46-0
 114260-09-2 114402-54-9, 1,3-Bis-(4-aminophenylamino)-propane
 115423-85-3 115423-86-4 117907-43-4 126335-43-1,

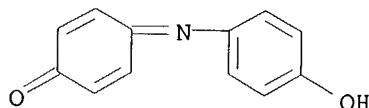
2-(2,5-Diaminophenoxy) ethanol 128729-30-6, 1,3-Bis-[N-(4-aminophenyl)-2-hydroxyethylamino]-2-propanol 130582-56-8, 1,3-Bis-(4-aminophenylamino)-2-propanol 137290-78-9 137290-86-9 141614-04-2 141614-05-3 145092-00-8, 3-Amino-5-hydroxypyrazole 146658-65-3 149330-25-6 155601-17-5, 1-(2-Hydroxyethyl)-4,5-diaminopyrazole 159519-79-6, Brenzcatechin 159661-40-2 159661-41-3 159661-42-4 159661-43-5 159661-45-7, 1,8-Bis-(2,5-diaminophenoxy)-3,6-dioxaoctane 211872-02-5 220118-56-9 313219-61-3 346593-13-3, 3-Amino-4-nitro-acenaphthene 346684-81-9 375856-52-3 503856-02-8 503856-16-4 503856-17-5 503856-18-6 506436-20-0 506436-21-1 506436-47-1
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(oxidative hair dyes containing aromatic dicarbonyl compds., other dyes and color intensifiers)

IT 500-85-6D, Indophenol, derivs.

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(oxidative hair dyes containing aromatic dicarbonyl compds., other dyes and color intensifiers)

RN 500-85-6 HCPLUS

CN 2,5-Cyclohexadien-1-one, 4-[(4-hydroxyphenyl)imino]- (9CI) (CA INDEX NAME)



L84 ANSWER 8 OF 44 HCPLUS COPYRIGHT 2004 ACS on STN

AN 2003:278303 HCPLUS

DN 138:308930

TI Oxidative hair dyes containing quaternary heterocycles

IN Gross, Wibke; Oberkobusch, Doris; Mueller, Helmut; Hoeffkes, Horst; Moeller, Hinrich

PA Henkel K.-G.a.A., Germany

SO Ger. Offen., 24 pp.

CODEN: GWXXBX

DT Patent

LA German

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 10148844	A1	20030410	DE 2001-10148844	20011004
WO 2003030847	A1	20030417	WO 2002-EP10736	20020925
W: AU, BR, CA, CN, HU, JP, NO, PL, RU, US, VN				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR				
EP 1432388	A1	20040630	EP 2002-772344	20020925
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR, BG, CZ, EE, SK				

PRAI DE 2001-10148844 A 20011004

WO 2002-EP10736 W 20020925

OS MARPAT 138:308930

AB The invention concerns oxidative hair dyes that contain quaternary heterocycles and CH-acidic compds.; other group of compds. can be added that are selected from aromatic or heteroarom. aldehydes or ketones, aminoacids, oligopeptides composed of 2-9 amino acids, primary or secondary aromatic amines, nitrogen-containing heterocycles and hydroxyl compds.

Thus in a dyeing experiment the 4-chloro-1-ethylquinolinium tetrafluoroborate and 1,2,3,3-tetramethylindolium iodide were mixed at pH 9 and red color was obtained.

IC ICM A61K007-13
CC 62-3 (Essential Oils and Cosmetics)
ST oxidative hair dye quaternary heterocycle
IT Proteins
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(almond; oxidative hair dyes containing quaternary heterocycles)
IT Amines, biological studies
Nitriles, biological studies
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(aromatic; oxidative hair dyes containing quaternary heterocycles)
IT Hair preparations
(dyes, oxidative; oxidative hair dyes containing quaternary heterocycles)
IT Carbonyl compounds (organic), biological studies
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(heterocyclic; oxidative hair dyes containing quaternary heterocycles)
IT Peptides, biological studies
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(oligopeptides; oxidative hair dyes containing quaternary heterocycles)
IT Aldehydes, biological studies
Carbonates, biological studies
Caseins, biological studies
Collagens, biological studies
Elastins
Halides
Keratins
Ketones, biological studies
Lysins
Quaternary ammonium compounds, biological studies
Salts, biological studies
Sulfates, biological studies
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(oxidative hair dyes containing quaternary heterocycles)
IT Heterocyclic compounds
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(quaternary; oxidative hair dyes containing quaternary heterocycles)
IT Proteins
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(soybean; oxidative hair dyes containing quaternary heterocycles)
IT Glutens
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(wheat gluten; oxidative hair dyes containing quaternary heterocycles)
IT 50-21-5D, Lactic acid, salts 56-41-7, L-Alanine, biological studies
59-48-3, Oxindol 59-92-7, DOPA, biological studies 60-18-4,
L-Tyrosine, biological studies 60-32-2 62-53-3, Aniline, biological
studies 63-91-2, L-Phenylalanine, biological studies 64-18-6D, Formic
acid, salts 64-19-7D, Acetic acid, salts 65-49-6, 4-Aminosalicylic
acid 66-72-8, Pyridoxal 67-52-7, Barbituric acid 70-26-8,
L-Ornithine 70-70-2 71-00-1, L-Histidine, biological studies
73-22-3, L-Tryptophane, biological studies 74-79-3, L-Arginine,
biological studies 75-75-2D, Methanesulfonic acid, salts with quaternary
heterocycles 79-09-4D, Propionic acid, salts 79-14-1D, Glycolic acid,
salts 83-07-8, 3H-Pyrazol-3-one, 4-amino-1,2-dihydro-1,5-dimethyl-2-
phenyl- 83-30-7, 2,4,6-Trihydroxybenzoic acid 83-33-0, Indan-1-one
83-33-0D, Indanone, derivs. 83-56-7, 1,5-Dihydroxynaphthalene
84-65-1D, Anthraquinone, derivs. 84-83-3, 2-Formylmethylene-1,3,3-
trimethylindoline 87-02-5, 7-Amino-4-hydroxynaphthalene-2-sulfonic acid

87-66-1, Pyrogallol 88-21-1, 2-Aminobenzene sulfonic acid 88-74-4,
2-Nitroaniline 89-25-8, 1-Phenyl-3-methylpyrazol-5-one 89-57-6,
5-Aminosalicylic acid 89-84-9 89-86-1, 2,4-Dihydroxybenzoic acid
90-02-8, biological studies 90-05-1, 2-Methoxyphenol 90-15-3,
1-Naphthol 90-20-0, 4-Amino-5-hydroxynaphthalene-2,7-disulfonic acid
90-44-8, Anthrone 91-29-2, 4'-Amino-4-nitrodiphenylamine-2-sulfonic acid
91-56-5D, Isatin, N-(2-Hydroxyalkyl), N-Allyl- derivs. 91-95-2,
3,3',4,4'-Tetraaminodiphenyl 92-44-4, 2,3-Dihydroxynaphthalene 93-05-0
93-55-0, Propiophenone 95-01-2, 2,4-Dihydroxybenzaldehyde 95-54-5,
o-Phenylenediamine, biological studies 95-55-6, 2-Aminophenol 95-70-5,
2,5-Diaminotoluol 95-88-5, 4-Chlororesorcin 96-91-3, Picramic acid
96-93-5 97-51-8, 2-Hydroxy-5-nitrobenzaldehyde 98-01-1, Furfural,
biological studies 98-37-3, 3-Amino-4-hydroxybenzenesulfonic acid
98-79-3, Pyrrolidone-5-carboxylic acid 98-86-2, Acetophenone, biological
studies 99-05-8, 3-Aminobenzoic acid 99-07-0, 3-Dimethylaminophenol
99-31-0, 5-Aminoisophthalic acid 99-50-3, 3,4-Dihydroxybenzoic acid
99-56-9, 1,2-Diamino-4-nitrobenzene 99-61-6, 3-Nitrobenzaldehyde
99-92-3 99-93-4, 4-Hydroxyacetophenone 99-98-9 100-01-6,
4-Nitroaniline, biological studies 100-10-7, 4-Dimethylaminobenzaldehyde
101-54-2, N-Phenyl-1,4-phenylenediamine 101-77-9, 4,4'-
Diaminodiphenylmethane 101-80-4, 4,4'-Diaminodiphenyl ether 102-32-9,
3,4-Dihydroxy-phenylacetic acid 106-50-3, p-Phenylenediamine, biological
studies 107-92-6D, Butanoic acid, salts 108-45-2, m-Phenylenediamine,
biological studies 108-46-3, Resorcin, biological studies 108-72-5,
1,3,5-Triaminobenzene 108-73-6, Phloroglucine 109-00-2,
3-Hydroxypyridine 110-85-0, Piperazine, biological studies 110-86-1,
Pyridine, biological studies 110-89-4, Piperidine, biological studies
116-63-2, 4-Amino-3-hydroxynaphthalene-1-sulfonic acid 117-39-5,
Quercetin 118-12-7 118-70-7, 4,5,6-Triaminopyrimidine 118-92-3,
2-Aminobenzoic acid 118-93-4 119-34-6, 4-Amino-2-nitrophenol
119-59-5, 4,4'-Diaminodiphenylsulfoxide 119-61-9, Benzophenone,
biological studies 119-70-0, 4,4'-Diaminodiphenylamine-2-sulfonic acid
120-21-8, 4-Diethylaminobenzaldehyde 120-46-7, 2-Benzoylacetophenone
120-72-9, Indole, biological studies 120-72-9D, Indole, derivs.
120-80-9, Pyrocatechol, biological studies 121-33-5, Vanillin
121-47-1, 3-Aminobenzene sulfonic acid 121-57-3, 4-Aminobenzene sulfonic
acid 121-71-1 123-30-8, 4-Aminophenol 123-31-9, Hydroquinone,
biological studies 123-75-1, Pyrrolidine, biological studies 126-81-8,
5,5-Dimethylcyclohexane-1,3-dione 131-56-6, 2,4-Dihydroxybenzophenone
139-65-1, 4,4'-Diaminodiphenylsulfide 141-84-4, Rhodanine 141-86-6,
2,6-Diaminopyridine 142-08-5, 2-Hydroxypyridine 142-62-1D, Caprylic
acid, salts 147-85-3, L-Proline, biological studies 149-91-7, Gallic
acid, biological studies 150-13-0, 4-Aminobenzoic acid 150-19-6,
3-Methoxyphenol 150-75-4, 4-Methylaminophenol 150-76-5,
4-Methoxyphenol 156-81-0, 2,4-Diaminopyrimidine 288-13-1, Pyrazole
288-32-4, Imidazole, biological studies 288-88-0, 1H-1,2,4-Triazole
326-91-0, 2-Thenoyltrifluoro-acetone 350-03-8, 3-Acetylpyridine
366-18-7, 2,2'-Bipyridine 452-58-4, 2,3-Diaminopyridine 458-36-6,
4-Hydroxy-3-methoxyimtaldehyde 480-66-0 486-25-9, 9-Fluorenone
487-48-9, Salicyl 487-89-8, 1H-Indole-3-carboxaldehyde 488-87-9,
2,5-Dimethylresorcin 490-78-8 491-38-3, Chromone 491-67-8,
5,6,7-Trihydroxyflavon e 492-94-4, 2,2'-Furil 492-97-7,
2,2'-Bithiophene 496-73-1, 4-Methylresorcin 498-02-2 498-94-2,
Piperidine-4-carboxylic acid 498-95-3, Piperidine-3-carboxylic acid
500-22-1, 3-Pyridinaldehyde 500-85-6D, Indophenol, derivs.
504-15-4 504-17-6, Thiobarbituric acid 504-24-5, 4-Aminopyridine
520-36-5, 4',5,7-Trihydroxyflavone 523-88-6, 5,5'-Dibromosalicil
525-82-6, Flavone 528-21-2 528-75-6, 2,4-Dinitrobenzaldehyde
533-31-3, 1,3-Benzodioxol-5-ol 533-73-3, Hydroxyhydroquinone 535-75-1,

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RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(oxidative hair dyes containing quaternary heterocycles)

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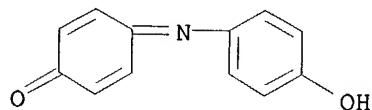
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
 (oxidative hair dyes containing quaternary heterocycles)

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503855-55-8 503856-02-8 503856-16-4 503856-17-5

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(oxidative hair dyes containing quaternary heterocycles)

IT 503856-18-6
 RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
 (oxidative hair dyes containing quaternary heterocycles)
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 RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
 (oxidative hair dyes containing quaternary heterocycles)
 RN 500-85-6 HCAPLUS
 CN 2,5-Cyclohexadien-1-one, 4-[(4-hydroxyphenyl)imino]- (9CI) (CA INDEX
 NAME)



L84 ANSWER 9 OF 44 HCAPLUS COPYRIGHT 2004 ACS on STN
 AN 2003:278301 HCAPLUS
 DN 138:292386
 TI Hair dyes containing aromatic or heteroaromatic aldehydes and ketones in combination with 1-acylindoline-3-one derivatives, other dyes and color intensifiers

IN Moeller, Hinrich; Oberkobusch, Doris
 PA Henkel K.-G.a.A., Germany
 SO Ger. Offen., 22 pp.
 CODEN: GWXXBX

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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	WO 2003030842	A1	20030417	WO 2002-EP10734	20020925
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	WO 2002-EP10734	W	20020925		

OS MARPAT 138:292386

AB The invention concerns hair dyes that contain aromatic or heteroarom. aldehydes and ketones, 1-acylindoline-3-one derivs., other dyes and color intensifiers. The components are selected from the group of primary and secondary aromatic amines, hydroxydes, nitrogen-containing heterocycles, amino acids etc. Thus in a dyeing experiment 5 mmol 4-formyl-1-methylquinolinium-p-toluene sulfonate and 5 mmol 1-acetylindoline-3-one were mixed and pH 6 was set; an intensive red-violet color was obtained.

IC ICM A61K007-13

CC 62-3 (Essential Oils and Cosmetics)

ST hair dye arom heteroarom aldehyde ketone acylindoline one

IT Proteins

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
 (almond; hair dyes containing aromatic or heteroarom. aldehydes and ketones
 in
 combination with 1-acylindoline-3-one derivs., other dyes and color

intensifiers)

IT Surfactants
(anionic; hair dyes containing aromatic or heteroarom. aldehydes and ketones in combination with 1-acylindoline-3-one derivs., other dyes and color intensifiers)

IT Aldehydes, biological studies
Ketones, biological studies
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(aromatic; hair dyes containing aromatic or heteroarom. aldehydes and ketones in combination with 1-acylindoline-3-one derivs., other dyes and color intensifiers)

IT Dyes
in
(direct; hair dyes containing aromatic or heteroarom. aldehydes and ketones in combination with 1-acylindoline-3-one derivs., other dyes and color intensifiers)

IT Hair preparations
(dyes, oxidative; hair dyes containing aromatic or heteroarom. aldehydes and ketones in combination with 1-acylindoline-3-one derivs., other dyes and color intensifiers)

IT Hair preparations
(dyes; hair dyes containing aromatic or heteroarom. aldehydes and ketones in combination with 1-acylindoline-3-one derivs., other dyes and color intensifiers)

IT Oxidizing agents
(hair dyes containing aromatic or heteroarom. aldehydes and ketones in combination with 1-acylindoline-3-one derivs., other dyes and color intensifiers)

IT Aldehydes, biological studies
Amines, biological studies
Carbonyl compounds (organic), biological studies
Caseins, biological studies
Collagens, biological studies
Collagens, biological studies
Elastins
Elastins
Glutens
Keratins
Ketones, biological studies
Quaternary ammonium compounds, biological studies
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(hair dyes containing aromatic or heteroarom. aldehydes and ketones in combination with 1-acylindoline-3-one derivs., other dyes and color intensifiers)

IT Ketones, biological studies
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(heteroarom.; hair dyes containing aromatic or heteroarom. aldehydes and ketones in combination with 1-acylindoline-3-one derivs., other dyes and color intensifiers)

IT Aldehydes, biological studies
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(heteroaryl; hair dyes containing aromatic or heteroarom. aldehydes and ketones in combination with 1-acylindoline-3-one derivs., other dyes and color intensifiers)

IT Surfactants
(nonionic; hair dyes containing aromatic or heteroarom. aldehydes and ketones in combination with 1-acylindoline-3-one derivs., other dyes and color

intensifiers)

IT Peptides, biological studies

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(oligopeptides; hair dyes containing aromatic or heteroarom. aldehydes and ketones in combination with 1-acylindoline-3-one derivs., other dyes and color intensifiers)

IT Proteins

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(soybean; hair dyes containing aromatic or heteroarom. aldehydes and ketones in combination with 1-acylindoline-3-one derivs., other dyes and color intensifiers)

IT Surfactants

(zwitterionic; hair dyes containing aromatic or heteroarom. aldehydes and ketones in combination with 1-acylindoline-3-one derivs., other dyes and color intensifiers)

IT 51-92-3D, Tetramethylammonium, salts 59-48-3 59-92-7, biological studies 60-18-4, L-Tyrosine, biological studies 60-32-2 62-53-3, Benzenamine, biological studies 63-91-2, L-Phenylalanine, biological studies 65-49-6 66-40-0D, Tetraethylammonium, salts 66-72-8 67-52-7, 2,4,6(1H,3H,5H)-Pyrimidinetrione 70-18-8, Glutathion, biological studies 70-26-8, L-Ornithine 70-70-2 71-00-1, L-Histidine, biological studies 71-47-6D, Formate, derivs. 71-50-1D, Acetate, salts 72-03-7D, Propionate, salts 73-22-3, L-Tryptophan, biological studies 74-79-3, L-Arginine, biological studies 83-07-8 83-30-7 83-33-0 83-56-7, 1,5-Naphthalenediol 84-83-3 87-02-5 87-66-1, 1,2,3-Benzenetriol 88-21-1 88-74-4 89-57-6 89-84-9 89-86-1 90-02-8, biological studies 90-05-1 90-15-3, 1-Naphthalenol 90-20-0 90-44-8, 9(10H)-Anthracenone 91-29-2 91-56-5, 1H-Indole-2,3-dione 91-95-2, [1,1'-Biphenyl]-3,3',4,4'-tetramine 92-44-4, 2,3-Naphthalenediol 93-05-0 93-55-0 95-01-2 95-54-5, 1,2-Benzenediamine, biological studies 95-55-6 95-70-5 95-88-5 96-91-3 96-93-5 97-51-8 98-01-1, 2-Furancarboxaldehyde, biological studies 98-37-3 98-86-2, biological studies 99-05-8 99-07-0 99-31-0 99-50-3 99-56-9 99-61-6 99-92-3 99-93-4 99-98-9 100-01-6, biological studies 100-10-7 101-54-2 101-77-9 101-80-4 102-32-9 106-50-3, 1,4-Benzenediamine, biological studies 107-95-9, L-Alanine 108-45-2, 1,3-Benzenediamine, biological studies 108-46-3, 1,3-Benzenediol, biological studies 108-72-5, 1,3,5-Benzenetriamine 108-73-6, 1,3,5-Benzenetriol 113-21-3D, Lactate, salts 116-63-2 117-39-5 118-12-7 118-70-7, 4,5,6- Pyrimidinetriamine 118-92-3 118-93-4 119-34-6 119-59-5 119-61-9, biological studies 119-70-0 120-21-8 120-46-7 120-72-9, 1H-Indole, biological studies 120-72-9D, 1H-Indole, derivs. 120-80-9, 1,2-Benzenediol, biological studies 121-33-5 121-47-1 121-57-3 121-71-1 123-30-8 123-31-9, 1,4-Benzenediol, biological studies 126-44-3D, Citrate, salts 131-56-6 134-81-6, Benzil 139-65-1 141-84-4 141-86-6, 2,6-Pyridinediamine 142-62-1D, Hexanoic acid, salts 147-85-3, L-Proline, biological studies 149-91-7, biological studies 150-13-0 150-19-6 150-75-4 150-76-5 156-81-0, 2,4- Pyrimidinediamine 288-88-0, 1H-1,2,4-Triazole 326-91-0 350-03-8 366-18-7, 2,2'-Bipyridine 452-58-4, 2,3-Pyridinediamine 458-36-6 461-55-2D, Butyrate, salts 462-08-8, 3-Pyridinamine 480-66-0 486-25-9, 9H-Fluoren-9-one 487-48-9 487-89-8, 1H-Indole-3- carboxaldehyde 488-87-9 490-78-8 491-38-3, 4H-1-Benzopyran-4-one 491-67-8 492-94-4 492-97-7, 2,2'-Bithiophene 496-73-1 498-02-2 500-22-1, 3-Pyridinecarboxaldehyde 500-85-6D, Indophenol, derivs. 504-15-4 504-17-6 504-24-5, 4-Pyridinamine 504-29-0, 2-Pyridinamine 520-36-5 523-88-6 525-82-6 528-21-2 528-75-6 533-31-3, 1,3-Benzodioxol-5-ol 533-73-3, 1,2,4-Benzenetriol 535-87-5

537-65-5 548-83-4 552-89-6 553-26-4, 4,4'-Bipyridine 553-86-6,
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 577-56-0 577-85-5 578-66-5, 8-Quinolinamine 579-07-7 580-17-6,
 3-Quinolinamine 580-22-3, 2-Quinolinamine 582-17-2,
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 1H-Indene-1,3(2H)-dione 606-31-5 606-57-5 608-08-2 608-25-3
 608-59-3D, Gluconate, salts 608-97-9, Benzenepentamine 609-20-1
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 614-16-4 615-66-7 615-71-4, 1,2,4-Benzenetriamine 619-05-6
 621-96-5 623-30-3 636-25-9 698-63-5, biological studies 699-83-2
 703-80-0 704-13-2 711-79-5 712-61-8 712-97-0 779-90-8 832-58-6
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 1125-60-6, 5-Isoquinolinamine 1136-86-3 1137-42-4 1143-38-0
 1143-72-2 1192-58-1 1197-55-3 1199-59-3 1204-86-0 1217-89-6
 1226-42-2 1424-66-4 1450-75-5 1455-77-2, 1H-1,2,4-Triazole-3,5-
 diamine 1466-88-2 1470-79-7 1483-97-2 1484-05-5 1504-76-3
 1571-72-8 1734-79-8 1820-80-0, 1H-Pyrazol-3-amine 1874-22-2
 2058-74-4 2124-31-4 2291-40-9 2374-03-0 2431-00-7 2460-59-5
 2478-38-8

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
 (hair dyes containing aromatic or heteroarom. aldehydes and ketones
 in combination with 1-acylindoline-3-one derivs., other dyes and color
 intensifiers)

IT 2654-52-6 2785-06-0 2835-77-0 2835-95-2 2835-98-5 2835-99-6
 2871-01-4 2887-61-8 3011-34-5 3131-52-0, 1H-Indole-5,6-diol
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 3468-11-9 3565-42-2, 2,3,4(1H)-Quinolinetrione 3674-33-7 3715-17-1D,
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 4318-76-7, 2,5-Pyridinediamine 4331-29-7, 1H-Benzimidazol-4-amine
 4363-93-3, 4-Quinolinecarboxaldehyde 4444-26-2, Benzenehexamine
 4928-43-2 4940-39-0 5007-67-0 5099-39-8 5131-58-8 5192-03-0,
 1H-Indol-5-amine 5192-04-1, 1H-Indol-7-amine 5192-23-4,
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 5318-27-4, 1H-Indol-6-amine 5345-47-1 5416-80-8 5432-53-1
 5434-20-8 5551-11-1 5650-41-9 5718-83-2 5850-35-1 5959-52-4
 6093-67-0 6093-68-1 6201-65-6 6203-18-5 6247-27-4 6259-50-3
 6322-56-1 6358-09-4 6361-22-4 6399-72-0 6628-04-2 6628-86-0
 6633-46-1 6634-82-8 6635-20-7 6781-42-6 6967-12-0,
 1H-Indazol-6-amine 7218-02-2 7313-70-4 7332-96-9 7336-20-1
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 7439-93-2D, Lithium, salts 7439-95-4D, Magnesium, salts 7439-96-5D,
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 16634-88-1 16800-67-2 16800-67-2D, salts 16800-68-3 16859-86-2
 16867-03-1 17028-61-4 17078-27-2 17422-74-1 17630-76-1
 17672-22-9 18073-18-2 18899-16-6D, salts 19005-93-7,
 1H-Indole-2-carboxaldehyde 19012-02-3 19012-03-4 19298-14-7
 19335-11-6, 1H-Indazol-5-amine 20103-09-7 20357-25-9 20432-35-3
 21240-56-2 22525-43-5 22711-20-2 22711-21-3 22711-23-5
 22715-34-0 22948-94-3 23244-87-3, 2,4,5-Pyridinetriamine 23894-07-7
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 28020-38-4 29539-03-5 29705-39-3 31541-32-9 31680-07-6
 31835-64-0 31905-57-4D, Nitrophenylenediamine, derivs. 32479-73-5
 33288-79-8 33709-29-4 33985-71-6 35578-47-3 36075-79-3D, salts
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 51387-92-9 51980-54-2 52605-12-6 52943-88-1 53003-19-3
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 55302-96-0 55949-38-7, Pyrimidinol 56159-70-7 56932-44-6
 57122-18-6D, Glycolate, salts 58028-76-5 58480-17-4 58979-56-9
 59184-59-7 61224-35-9 61693-42-3 62077-85-4D, salts 62378-72-7
 62486-02-6 62486-03-7 62486-04-8 62496-02-0 63149-33-7
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 67608-58-6 67608-59-7 68391-32-2 68549-78-0 69537-53-7D, salts
 69564-74-5 69825-83-8 70484-29-6 70643-19-5 71134-97-9
 71177-91-8 73264-13-8D, salts 74991-01-8D, salts

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
 (hair dyes containing aromatic or heteroarom. aldehydes and ketones in
 combination with 1-acylindoline-3-one derivs., other dyes and color
 intensifiers)

IT 75722-39-3D, salts 77484-77-6 77523-60-5D, salts 78521-11-6D, salts
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 325958-39-2D, salts 325958-40-5D, salts 325958-41-6D, salts
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 503853-97-2 503854-00-0 503854-04-4 503854-05-5 503854-06-6
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 503854-84-0D, salts 503854-85-1D, salts 503854-87-3D, salts
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 503855-01-4D, salts 503855-03-6D, salts 503855-05-8D, salts
 503855-07-0D, salts 503855-09-2D, salts 503855-11-6D, salts
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 503855-47-8 503855-48-9 503855-49-0 503855-50-3 503855-51-4
 503855-53-6 503855-54-7 503855-55-8 503856-02-8 503856-16-4
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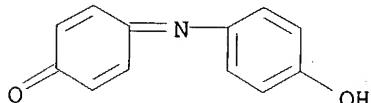
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
 (hair dyes containing aromatic or heteroarom. aldehydes and ketones in
 combination with 1-acylindoline-3-one derivs., other dyes and color
 intensifiers)

IT 500-85-6D, Indophenol, derivs.

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
 (hair dyes containing aromatic or heteroarom. aldehydes and ketones
 in combination with 1-acylindoline-3-one derivs., other dyes and color
 intensifiers)

RN 500-85-6 HCPLUS

CN 2,5-Cyclohexadien-1-one, 4-[(4-hydroxyphenyl)imino]- (9CI) (CA INDEX
 NAME)



L84 ANSWER 10 OF 44 HCPLUS COPYRIGHT 2004 ACS on STN
 AN 2002:714119 HCPLUS
 DN 137:252663

TI Hair dyeing compositions comprising a ring-fused heterocycle direct dyes
 IN Pratt, Dominic; Kawagishi, Toshio

PA Kao Corporation, Japan; Fuji Photo Film Co., Ltd.

SO Eur. Pat. Appl., 28 pp.

CODEN: EPXXDW

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1240892	A2	20020918	EP 2002-5386	20020315
	EP 1240892	A3	20040128		

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
 IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
 DE 10112436 A1 20021002 DE 2001-10112436 20010315
 DE 10112436 C2 20030821
 DE 10114545 A1 20021219 DE 2001-10114545 20010324
 EP 1275367 A1 20030115 EP 2001-117774 20010801
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
 IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
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 JP 2003113055 A2 20030418 JP 2002-72373 20020315
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 IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK
 EP 1398022 A1 20040317 EP 2003-20523 20030916
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 IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK
 JP 2004107343 A2 20040408 JP 2003-322462 20030916
 PRAI DE 2001-10112436 A 20010315
 DE 2001-10114545 A 20010324
 JP 2001-231327 A 20010731
 EP 2001-117774 A 20010801
 EP 2001-115750 A 20010709
 EP 2002-20528 A 20020916

OS MARPAT 137:252663

AB The present invention is directed to a hair coloring method by using a composition and to the composition comprising a specified ring-fused heterocycle

direct dye (e.g., a pyrazolotriazole). This composition has a surprisingly good hair coloring performance and compatibility with peroxides. The use of this composition leads to long lasting brilliant colors, wherein the color is stable against washing of the hair and environmental influences.

3-Methyl-6-phenyl-1 H-pyrazolo[5,1-c][1,2,4]triazole (0.5g) was dissolved in water and allowed to react with 4-amino-2,6-dichlorophenol in the presence of potassium persulfate to give a pyrazolotriazole direct dye. A formulation contained the above dye 0.01, benzyl alc. 0.5 ammonia up to pH 10, and water up to 10 g. The composition imparted a bright vivid magenta color to white goat hair.

IC ICM A61K007-13

CC 62-3 (Essential Oils and Cosmetics)

Section cross-reference(s): 28

ST hair dye direct pyrazolotriazole prepn; ring fused heterocycle direct dye
hair prepn

IT Dyes

(direct; hair dyeing compns. comprising ring-fused heterocycle direct dyes)

IT Hair preparations

(dyes, oxidative; hair dyeing compns. comprising ring-fused heterocycle direct dyes)

IT Hair preparations

(dyes; hair dyeing compns. comprising ring-fused heterocycle direct dyes)

IT Hair

Human

(hair dyeing compns. comprising ring-fused heterocycle direct dyes)

IT 163921-17-3 459425-56-0 460988-77-6

460988-78-7 460988-79-8 460988-80-1

460988-81-2 460988-82-3 460988-83-4

460988-84-5

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(hair dyeing compns. comprising ring-fused heterocycle direct
dyes)

IT 448235-46-9P 448235-48-1P 460988-76-5P
RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(hair dyeing compns. comprising ring-fused heterocycle direct dyes)

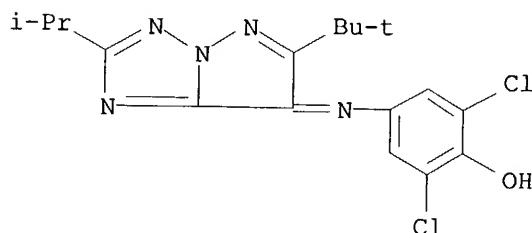
IT 5930-28-9 66348-57-0 101948-27-0 448235-49-2
RL: RCT (Reactant); RACT (Reactant or reagent)

IT 163921-17-3 459425-56-0 460988-77-6
460988-78-7 460988-79-8 460988-80-1
460988-81-2 460988-82-3 460988-83-4
460988-84-5
(hair dyeing compns. comprising ring-fused heterocycle direct dyes)

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(hair dyeing compns. comprising ring-fused heterocycle direct dyes)

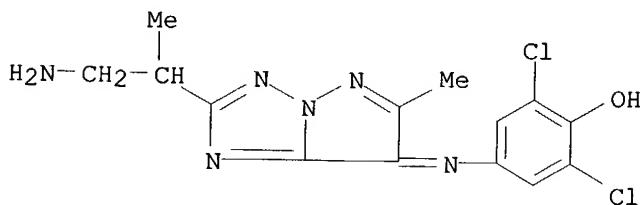
RN 163921-17-3 HCAPLUS

CN Phenol, 2,6-dichloro-4-[[6-(1,1-dimethylethyl)-2-(1-methylethyl)-7H-pyrazolo[1,5-b][1,2,4]triazol-7-ylidene]amino]- (9CI) (CA INDEX NAME)



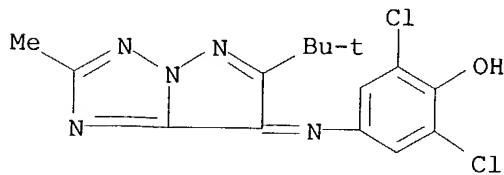
RN 459425-56-0 HCAPLUS

CN Phenol, 4-[(2-(2-amino-1-methylethyl)-6-methyl-7H-pyrazolo[1,5-b][1,2,4]triazol-7-ylidene]amino]-2,6-dichloro- (9CI). (CA INDEX NAME)

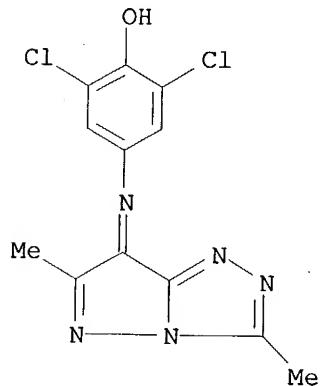


RN 460988-77-6 HCAPLUS

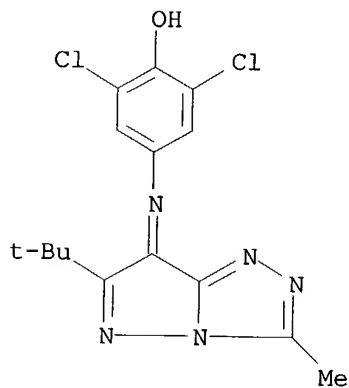
CN Phenol, 2,6-dichloro-4-[(6-(1,1-dimethylethyl)-2-methyl-7H-pyrazolo[1,5-b][1,2,4]triazol-7-ylidene]amino)- (9CI) (CA INDEX NAME)



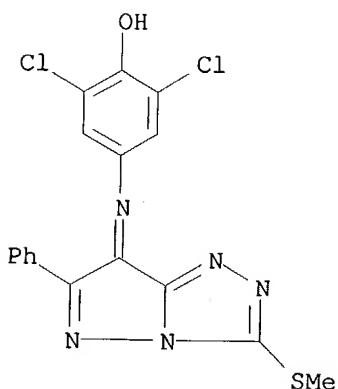
RN 460988-78-7 HCPLUS
CN Phenol, 2,6-dichloro-4-[(3,6-dimethyl-7H-pyrazolo[5,1-c]-1,2,4-triazol-7-ylidene)amino]- (9CI) (CA INDEX NAME)



RN 460988-79-8 HCPLUS
CN Phenol, 2,6-dichloro-4-[(6-(1,1-dimethylethyl)-3-methyl-7H-pyrazolo[5,1-c]-1,2,4-triazol-7-ylidene)amino]- (9CI) (CA INDEX NAME)

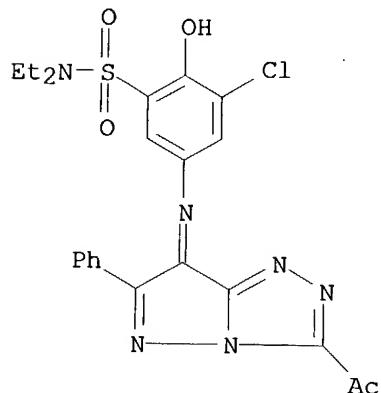


RN 460988-80-1 HCPLUS
CN Phenol, 2,6-dichloro-4-[(3-(methylthio)-6-phenyl-7H-pyrazolo[5,1-c]-1,2,4-triazol-7-ylidene)amino]- (9CI) (CA INDEX NAME)



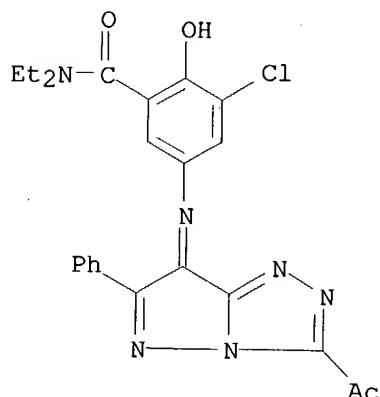
RN 460988-81-2 HCAPLUS

CN Benzenesulfonamide, 5-[(3-acetyl-6-phenyl-7H-pyrazolo[5,1-c]-1,2,4-triazol-7-ylidene)amino]-3-chloro-N,N-diethyl-2-hydroxy- (9CI) (CA INDEX NAME)



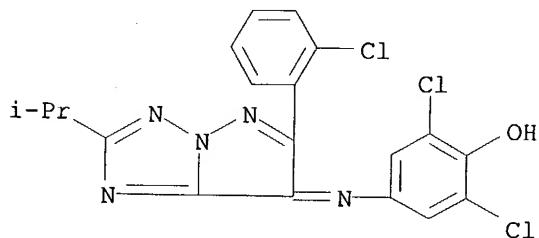
RN 460988-82-3 HCAPLUS

CN Benzamide, 5-[(3-acetyl-6-phenyl-7H-pyrazolo[5,1-c]-1,2,4-triazol-7-ylidene)amino]-3-chloro-N,N-diethyl-2-hydroxy- (9CI) (CA INDEX NAME)



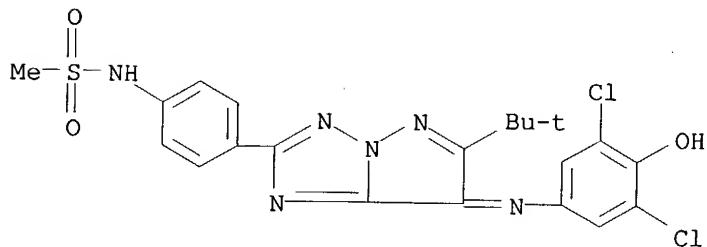
RN 460988-83-4 HCAPLUS

CN Phenol, 2,6-dichloro-4-[(6-(2-chlorophenyl)-2-(1-methylethyl)-7H-pyrazolo[1,5-b][1,2,4]triazol-7-ylidene)amino]- (9CI) (CA INDEX NAME)



RN 460988-84-5 HCAPLUS

CN Methanesulfonamide, N-[4-[7-[(3,5-dichloro-4-hydroxyphenyl)imino]-6-(1,1-dimethylethyl)-7H-pyrazolo[1,5-b][1,2,4]triazol-2-yl]phenyl]- (9CI) (CA INDEX NAME)

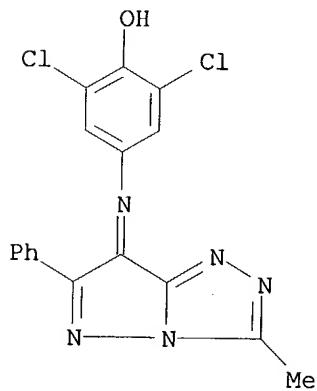


IT 448235-46-9P 448235-48-1P 460988-76-5P

RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(hair dyeing compns. comprising ring-fused heterocycle direct dyes)

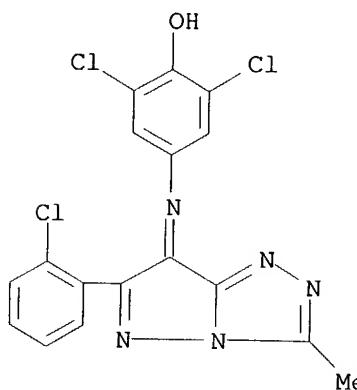
RN 448235-46-9 HCAPLUS

CN Phenol, 2,6-dichloro-4-[(3-methyl-6-phenyl-7H-pyrazolo[5,1-c]-1,2,4-triazol-7-ylidene)amino]- (9CI) (CA INDEX NAME)



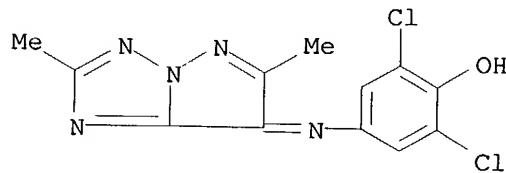
RN 448235-48-1 HCAPLUS

CN Phenol, 2,6-dichloro-4-[[6-(2-chlorophenyl)-3-methyl-7H-pyrazolo[5,1-c]-1,2,4-triazol-7-ylidene]amino]- (9CI) (CA INDEX NAME)



RN 460988-76-5 HCPLUS

CN Phenol, 2,6-dichloro-4-[(2,6-dimethyl-7H-pyrazolo[1,5-b][1,2,4]triazol-7-ylidene)amino]- (9CI) (CA INDEX NAME)



L84 ANSWER 11 OF 44 HCPLUS COPYRIGHT 2004 ACS on STN

AN 2002:714118 HCPLUS

DN 137:237397

TI Compositions for the dyeing of human hair

IN Pratt, Dominic

PA Kao Corporation, Japan

SO Eur. Pat. Appl., 10 pp.

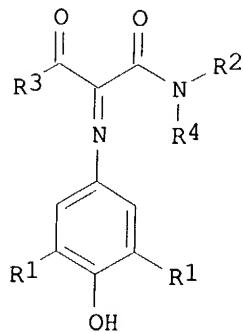
CODEN: EPXXDW

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1240891	A2	20020918	EP 2002-5385	20020315
	EP 1240891	A3	20030129		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
	DE 10112437	A1	20021002	DE 2001-10112437	20010315
	DE 10112437	C2	20030821		
	US 2003019052	A1	20030130	US 2002-95917	20020313
	US 6733541	B2	20040511		
	JP 2002275040	A2	20020925	JP 2002-71712	20020315
PRAI	DE 2001-10112437	A	20010315		
OS	MARPAT 137:237397				
GI					



I

AB A composition for the dyeing of human hair comprises at least 1 direct-acting hair dye (I, where R1 = halo, R2 and R4 = OH- or NH2-substituted C1-4 alkyl or Ph and R3 = H, or OH- or NH2-substituted C1-4 alkyl or Ph). Thus, benzoylacetanilide was allowed to react with 4-amino-2,6-dichlorophenol in the presence of K2S2O8 to give α -[(3,5-dichloro-4-hydroxyphenyl)imino]- β -oxo-N-phenylbenzenepropanamide. A formulation was prepared by dissolving 0.1 g of the above dye in 0.5 EtOH and mixing this solution with a mixture of 0.5 g benzyl alc. and 9 g water. A strand of undamaged, white goat hair was immersed in this solution for 20 min and after the coloration process, the strand was washed with a shampoo and dried.

IC ICM A61K007-13

CC 62-3 (Essential Oils and Cosmetics)

ST hair dye phenylpropanamide dichlorohydroxyphenyliminoxophenyl prepn

IT Hair Human
(compns. for dyeing of human hair)

IT Hair preparations
(dyes, oxidative; compns. for dyeing of human hair)

IT Hair preparations
(dyes; compns. for dyeing of human hair)

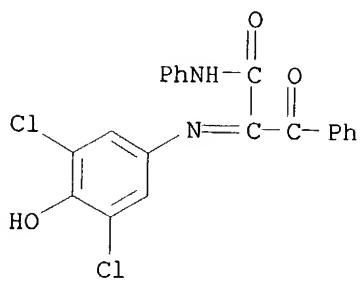
IT 448218-46-0P 448218-47-1P
RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(compns. for dyeing of human hair)

IT 959-66-0 2044-64-6, N,N-Dimethylacetacetamide 5930-28-9,
4-Amino-2,6-dichlorophenol
RL: RCT (Reactant); RACT (Reactant or reagent)
(compns. for dyeing of human hair)

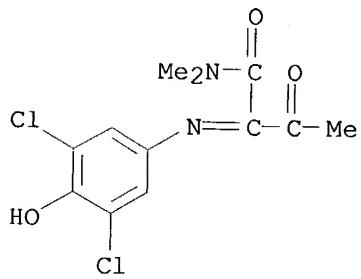
IT 448218-46-0P 448218-47-1P
RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(compns. for dyeing of human hair)

RN 448218-46-0 HCPLUS

CN Benzene propanamide, α -[(3,5-dichloro-4-hydroxyphenyl)imino]- β -oxo-N-phenyl- (9CI) (CA INDEX NAME)



RN 448218-47-1 HCAPLUS
 CN Butanamide, 2-[(3,5-dichloro-4-hydroxyphenyl)imino]-N,N-dimethyl-3-oxo-
 (9CI) (CA INDEX NAME)



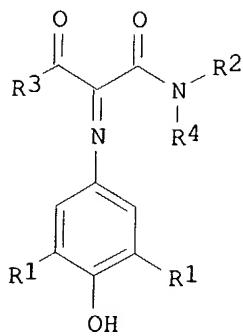
L84 ANSWER 12 OF 44 HCAPLUS COPYRIGHT 2004 ACS on STN
 AN 2002:634266 HCAPLUS
 DN 137:190366
 TI Hair dyes containing acetanilide derivatives of 4-amino-2,6-dichlorophenol
 PA Goldwell G.m.b.H., Germany
 SO Ger. Gebrauchsmusterschrift, 18 pp.
 CODEN: GGXXFR

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 20104442	U1	20020822	DE 2001-20104442	20010315
PRAI	DE 2001-20104442		20010315		
OS	MARPAT 137:190366				
GI					



I

AB The invention concerns the synthesis of acetanilide derivs. of 4-amino-2,6-dichlorophenol and their usage as direct hair dyes. Compds. of the general formula (I) are claimed; where R1 = halogen atom; R2 and R4 = optionally OH or NH2-substituted C1-C4-alkylgroup, Ph group; and R3 = H, OH or NH2-substituted C1-C4-alkylgroup, Ph group. The novel dyes excel higher permanency compared to other similar direct dyes. The hair dye compns. can also contain oxidative dyes.

IC ICM A61K007-13

CC 62-3 (Essential Oils and Cosmetics)
Section cross-reference(s): 25

ST direct hair dye acetanilide amino dichlorophenol deriv

IT Dyes
(direct; hair dyes containing acetanilide derivs. of 4-amino-2,6-dichlorophenol)

IT Hair preparations
(dyes, oxidative; hair dyes containing acetanilide derivs. of 4-amino-2,6-dichlorophenol)

IT Hair preparations
(dyes; hair dyes containing acetanilide derivs. of 4-amino-2,6-dichlorophenol)

IT 7732-18-5, Water, properties
RL: PRP (Properties)
(casreact)

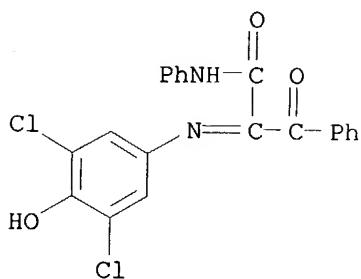
IT **448218-46-0P 448218-47-1P**
RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(hair dyes containing acetanilide derivs. of 4-amino-2,6-dichlorophenol)

IT 959-66-0 2044-64-6, N,N-Dimethylacetacetamide 5930-28-9,
4-Amino-2,6-dichlorophenol
RL: RCT (Reactant); RACT (Reactant or reagent)
(hair dyes containing acetanilide derivs. of 4-amino-2,6-dichlorophenol)

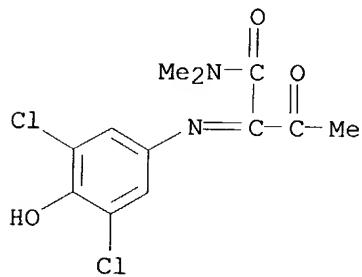
IT **448218-46-0P 448218-47-1P**
RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(hair dyes containing acetanilide derivs. of 4-amino-2,6-dichlorophenol)

RN 448218-46-0 HCPLUS

CN Benzenepropanamide, α -[(3,5-dichloro-4-hydroxyphenyl)imino]- β -oxo-N-phenyl- (9CI) (CA INDEX NAME)



RN 448218-47-1 HCAPLUS
 CN Butanamide, 2-[(3,5-dichloro-4-hydroxyphenyl)imino]-N,N-dimethyl-3-oxo-
 (9CI) (CA INDEX NAME)



L84 ANSWER 13 OF 44 HCAPLUS COPYRIGHT 2004 ACS on STN
 AN 2002:634265 HCAPLUS
 DN 137:174513
 TI Hair dyes containing 6-methyl-3-phenyl-pyrazolotriazole derivatives
 PA Goldwell G.m.b.H., Germany
 SO Ger. Gebrauchsmusterschrift, 19 pp.
 CODEN: GGXXFR
 DT Patent
 LA German
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI DE 20104441	U1	20020822	DE 2001-20104441	20010315
PRAI DE 2001-20104441		20010315		
OS MARPAT 137:174513				

AB The invention concerns the synthesis of 6-methyl-3-phenyl-pyrazolotriazole derivs. and their usage as direct dyes for hair. Compared with direct dyes of similar structure the novel dyes excel higher permanency. The dye compns. can contain oxidative dyes.

IC ICM A61K007-13

CC 62-3 (Essential Oils and Cosmetics)
 Section cross-reference(s): 28

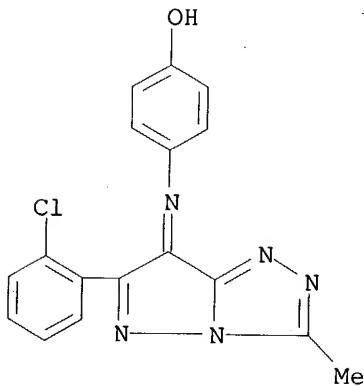
ST direct hair dye pyrazolotriazole deriv

IT Dyes
 (direct; hair dyes containing 6-Me-3-Ph-pyrazolotriazole derivs.)

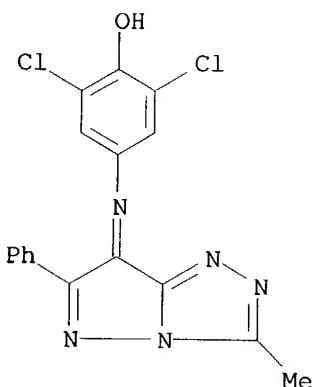
IT Hair preparations
 (dyes, oxidative; hair dyes containing 6-Me-3-Ph-pyrazolotriazole derivs.)

IT Hair preparations

IT (dyes; hair dyes containing 6-Me-3-Ph-pyrazolotriazole derivs.)
7732-18-5, Water, properties
RL: PRP (Properties)
(casreact)
IT 448235-47-0
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(hair dyes containing 6-Me-3-Ph-pyrazolotriazole derivs.)
IT 448235-46-9P 448235-48-1P
RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(hair dyes containing 6-Me-3-Ph-pyrazolotriazole derivs.)
IT 5930-28-9, 4-Amino-2,6-dichlorophenol 66348-57-0 448235-49-2
RL: RCT (Reactant); RACT (Reactant or reagent)
(hair dyes containing 6-Me-3-Ph-pyrazolotriazole derivs.)
IT 448235-47-0
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(hair dyes containing 6-Me-3-Ph-pyrazolotriazole derivs.)
RN 448235-47-0 HCPLUS
CN Phenol, 4-[(6-(2-chlorophenyl)-3-methyl-7H-pyrazolo[5,1-c]-1,2,4-triazol-7-ylidene]amino]- (9CI) (CA INDEX NAME)

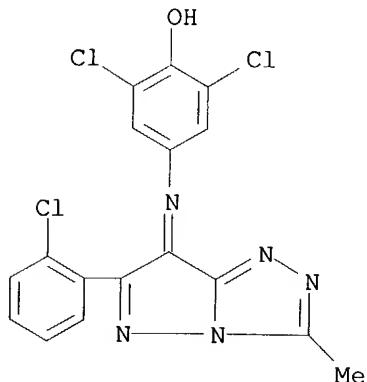


IT 448235-46-9P 448235-48-1P
RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(hair dyes containing 6-Me-3-Ph-pyrazolotriazole derivs.)
RN 448235-46-9 HCPLUS
CN Phenol, 2,6-dichloro-4-[(3-methyl-6-phenyl-7H-pyrazolo[5,1-c]-1,2,4-triazol-7-ylidene)amino]- (9CI) (CA INDEX NAME)



RN 448235-48-1 HCPLUS

CN Phenol, 2,6-dichloro-4-[(6-(2-chlorophenyl)-3-methyl-7H-pyrazolo[5,1-c]-1,2,4-triazol-7-ylidene)amino]- (9CI) (CA INDEX NAME)



L84 ANSWER 14 OF 44 HCPLUS COPYRIGHT 2004 ACS on STN

AN 2002:278381 HCPLUS

DN 137:116820

TI Photochemical and thermal modifications of permanent hair dyes

AU Motz-Schalck, Laurence; Lemaire, Jacques

CS Laboratoire de Photochimie Moleculaire et Macromoleculaire, Universite Blaise Pascal, UMR CNRS 6505, Aubiere, F-63177, Fr.

SO Journal of Photochemistry and Photobiology, A: Chemistry (2002), 147(3), 225-231

CODEN: JPPCEJ; ISSN: 1010-6030

PB Elsevier Science B.V.

DT Journal

LA English

AB A study of the thermal and photochem. transformation of an oxidative hair dye is carried out in solution and on hair. The influence of irradiation wavelength, temperature, humidity and oxygen on the dye evolution is examined. Inhibition of the transformation by oxygen was noticed. In each dye aminoindamine and aminoindoaniline, two colorless transformation products are pointed out. In order to confirm the hypothesis of a reduction mechanism, indamine is irradiated in nitrogen bubbled isopropanol solution. The same

photoproducts as on hair are found. Reverse phase liquid chromatog. coupled with pos. ionization mass spectroscopy allow to propose structures for the four transformation products.

CC 74-1 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 62

ST photochem thermal modification permanent oxidative hair dye

IT UV and visible spectra
(absorption; thermal and photochem. transformation of oxidative hair dye prepared by reaction of base and coupler in solution and on hair)

IT Hair preparations
(dyes; thermal and photochem. transformation of oxidative hair dye in solution and on hair as function of irradiation wavelength and temperature and humidity and oxygen)

IT Hair
Humidity
Photolysis
Thermal decomposition
(thermal and photochem. transformation of oxidative hair dye in solution and on hair as function of irradiation wavelength and temperature and humidity and oxygen)

IT Absorption spectra
(thermal and photochem. transformation of oxidative hair dye prepared by reaction of base and coupler in solution and on hair)

IT 106-50-3, p-Phenylenediamine, reactions 123-30-8, p-Aminophenol
RL: PEP (Physical, engineering or chemical process); RCT (Reactant); PROC (Process); RACT (Reactant or reagent)
(base; thermal and photochem. transformation of oxidative hair dye prepared by reaction of base and coupler in solution and on hair)

IT 70643-19-5, 2-Diamino-2,4-phenoxyethanol
RL: PEP (Physical, engineering or chemical process); RCT (Reactant); PROC (Process); RACT (Reactant or reagent)
(coupler; thermal and photochem. transformation of oxidative hair dye prepared by reaction of base and coupler in solution and on hair)

IT 443686-15-5P 443686-17-7P 443687-11-4P 443687-12-5P
RL: PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)
(photoproduct; thermal and photochem. transformation of oxidative hair dye in solution and on hair as function of irradiation wavelength and temperature and humidity and oxygen)

IT 443686-14-4 **443687-10-3**
RL: PEP (Physical, engineering or chemical process); PRP (Properties); RCT (Reactant); PROC (Process); RACT (Reactant or reagent)
(thermal and photochem. transformation of oxidative hair dye in solution and on hair as function of irradiation wavelength and temperature and humidity and oxygen)

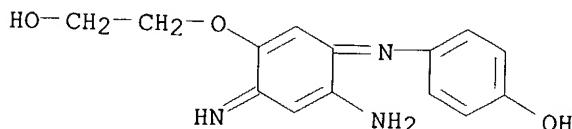
IT 7732-18-5, Water, properties 7782-44-7, Oxygen, properties
RL: PRP (Properties)
(thermal and photochem. transformation of oxidative hair dye in solution and on hair as function of irradiation wavelength and temperature and humidity and oxygen)

IT **443687-10-3**
RL: PEP (Physical, engineering or chemical process); PRP (Properties); RCT (Reactant); PROC (Process); RACT (Reactant or reagent)
(thermal and photochem. transformation of oxidative hair dye in solution and on hair as function of irradiation wavelength and temperature and humidity and oxygen)

in solution and on hair as function of irradiation wavelength and temperature and humidity and oxygen)

RN 443687-10-3 HCPLUS

CN Phenol, 4-[(2-amino-5-(2-hydroxyethoxy)-4-imino-2,5-cyclohexadien-1-ylidene]amino]- (9CI) (CA INDEX NAME)



RE.CNT 32 THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L84 ANSWER 15 OF 44 HCPLUS COPYRIGHT 2004 ACS on STN
AN 2001:923231 HCPLUS

DN 136:58497

TI Hair dyeing compositions containing oxocyclopentenes

IN Gross, Wibke; Hoeffkes, Horst; Martin, Hans-Dieter; Moeller, Hinrich; Oberkobusch, Doris

PA Henkel K.-G.a.A., Germany

SO Ger. Offen., 18 pp.

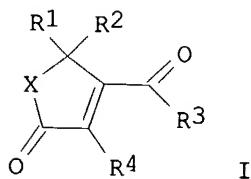
CODEN: GWXXBX

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 10029933	A1	20011220	DE 2000-10029933	20000617
	WO 2001097762	A1	20011227	WO 2001-EP6545	20010609
	W: AU, JP, US RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				
	EP 1311231	A1	20030521	EP 2001-949394	20010609
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR				
PRAI	DE 2000-10029933	A	20000617		
	WO 2001-EP6545	W	20010609		
OS	MARPAT 136:58497				
GI					



AB Hair dyes contain oxocyclopentene derivative (I, R1 and R2 = H, or a C1-4 alkyl, R3 and R4 = H, C1-4 alkyl or group of aryls, the remainder of R1 and R2 and/or R3 and R4 can form a ring, and X = C:O, C:S or CH2). Thus, 2,5,5-trimethyl-3-oxocyclopent-1-enecarboxaldehyde (II) was prepared and used in a formulation consisting of II 8, Natrosol 250HR 2.0 and water to

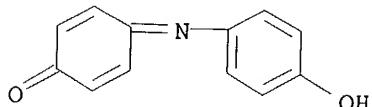
100 g.
IC ICM A61K007-13
CC 62-3 (Essential Oils and Cosmetics)
Section cross-reference(s): 23
ST oxacyclopentene hair dye prep
IT Amines, biological studies
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(aromatic, primary; hair dyeing compns. containing oxacyclopentenes)
IT Amines, biological studies
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(aryl, secondary; hair dyeing compns. containing oxacyclopentenes)
IT Amines, biological studies
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(diamines, aromatic; hair dyeing compns. containing oxacyclopentenes)
IT Hair preparations
(dyes; hair dyeing compns. containing oxacyclopentenes)
IT Shampoos
(hair dyeing compns. containing oxacyclopentenes)
IT Amino acids, biological studies
Nitriles, biological studies
Phenols, biological studies
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(hair dyeing compns. containing oxacyclopentenes)
IT Caseins, biological studies
Collagens, biological studies
Elastins
Keratins
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(hydrolyzates; hair dyeing compns. containing oxacyclopentenes)
IT Peptides, biological studies
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(oligopeptides; hair dyeing compns. containing oxacyclopentenes)
IT Protein hydrolyzates
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(soya; hair dyeing compns. containing oxacyclopentenes)
IT Protein hydrolyzates
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(wheat gluten; hair dyeing compns. containing oxacyclopentenes)
IT Glutens
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(wheat, hydrolyzates; hair dyeing compns. containing oxacyclopentenes)
IT 56-87-1, L-Lysine, biological studies 59-48-3 59-92-7, biological
studies 60-18-4, L-Tyrosine, biological studies 62-53-3, Benzenamine,
biological studies 63-91-2, L-Phenylalanine, biological studies
65-49-6 67-52-7, 2,4,6(1H,3H,5H)-Pyrimidinetrione 70-18-8, biological
studies 70-26-8, L-Ornithine 71-00-1, L-Histidine, biological studies
73-22-3, L-Tryptophan, biological studies 74-79-3, L-Arginine,
biological studies 77-32-7 81-11-8 83-30-7 83-33-0 83-56-7,
1,5-Naphthalenediol 84-65-1, 9,10-Anthracenedione 84-65-1D,
Anthraquinone, derivs. 87-02-5 87-66-1, 1,2,3-Benzenetriol 88-21-1
88-74-4 89-57-6 89-86-1 90-05-1 90-15-3, 1-Naphthalenol 90-20-0
91-29-2 92-44-4, 2,3-Naphthalenediol 92-65-9 95-54-5,
1,2-Benzenediamine, biological studies 95-55-6 95-70-5 95-88-5
96-91-3 96-93-5 98-37-3 99-05-8 99-07-0 99-31-0 99-50-3
99-56-9 100-01-6, biological studies 101-77-9 101-80-4 102-32-9
106-50-3, 1,4-Benzenediamine, biological studies 107-95-9,
β-Alanine 108-45-2, 1,3-Benzenediamine, biological studies
108-46-3, 1,3-Benzenediol, biological studies 108-72-5,
1,3,5-Benzenetriamine 108-73-6, 1,3,5-Benzenetriol 109-00-2,

3-Pyridinol 110-85-0, Piperazine, biological studies 110-86-1,
Pyridine, biological studies 110-89-4, Piperidine, biological studies
116-63-2 118-12-7 118-70-7, 4,5,6-Pyrimidinetriamine 118-92-3
119-34-6 119-59-5 119-70-0 119-72-2 120-72-9, 1H-Indole,
biological studies 120-80-9, 1,2-Benzenediol, biological studies
121-47-1 121-57-3 123-30-8 123-31-9, 1,4-Benzenediol, biological
studies 123-75-1, Pyrrolidine, biological studies 139-65-1 141-84-4
141-86-6, 2,6-Pyridinediamine 142-08-5, 2(1H)-Pyridinone 147-85-3,
L-Proline, biological studies 149-87-1 149-91-7, biological studies
150-13-0 150-19-6 150-75-4 150-76-5 156-81-0, 2,4-
Pyrimidinediamine 288-13-1, 1H-Pyrazole 288-32-4, 1H-Imidazole,
biological studies 288-88-0, 1H-1,2,4-Triazole 462-08-8,
3-Pyridinamine 480-66-0 488-87-9 496-73-1 498-94-2,
4-Piperidinecarboxylic acid 498-95-3, 3-Piperidinecarboxylic acid
500-85-6D, Indophenol, derivs. 504-15-4 504-17-6 504-24-5,
4-Pyridinamine 504-29-0, 2-Pyridinamine 517-22-6 533-31-3,
1,3-Benzodioxol-5-ol 533-73-3, 1,2,4-Benzenetriol 535-75-1,
2-Piperidinecarboxylic acid 535-87-5 537-65-5 553-86-6,
2(3H)-Benzofuranone 556-03-6, Tyrosine 570-24-1 578-66-5,
8-Quinolinamine 580-17-6, 3-Quinolinamine 580-22-3, 2-Quinolinamine
582-17-2, 2,7-Naphthalenediol 591-27-5 603-81-6 606-23-5,
1H-Indene-1,3(2H)-dione 606-55-3 606-57-5 608-08-2 608-25-3
610-74-2 610-81-1 611-03-0 611-98-3 614-82-4 615-66-7
615-71-4, 1,2,4-Benzenetriamine 616-45-5, 2-Pyrrolidinone 616-47-7
619-05-6 623-09-6 626-64-2, 4-Pyridinol 636-25-9 876-87-9
934-22-5, 1H-Benzimidazol-5-amine 1004-74-6, Pyrimidinetetramine
1004-75-7 1123-55-3, 7-Benzothiazolamine 1123-93-9,
5-Benzothiazolamine 1125-60-6, 5-Isoquinolinamine 1197-55-3
1455-77-2, 1H-1,2,4-Triazole-3,5-diamine 1571-72-8 1820-80-0,
1H-Pyrazol-3-amine 1953-54-4, 1H-Indol-5-ol 2374-03-0 2380-84-9,
1H-Indol-7-ol 2380-86-1, 1H-Indol-6-ol 2380-94-1, 1H-Indol-4-ol
2510-01-2 2654-52-6 2785-06-0 2835-98-5 2835-99-6 2871-01-4
3131-52-0, 1H-Indole-5,6-diol 3158-63-2 3167-49-5 3342-78-7
3855-78-5 4331-29-7, 1H-Benzimidazol-4-amine 4506-66-5 4928-43-2
5007-67-0 5099-39-8 5131-58-8 5192-03-0, 1H-Indol-5-amine
5192-04-1, 1H-Indol-7-amine 5192-23-4, 1H-Indol-4-amine 5217-47-0
5307-14-2 5318-27-4, 1H-Indol-6-amine 5345-47-1 5418-63-3
5434-20-8 5718-83-2 5850-35-1 5959-52-4 6201-65-6 6247-27-4
6259-50-3 6358-09-4 6399-72-0 6628-04-2 6634-82-8 6967-12-0,
1H-Indazol-6-amine 7336-20-1 7411-49-6 7575-35-1 7749-47-5
7768-28-7 10173-66-7 13754-19-3, 4,5-Pyrimidinediamine 14268-66-7,
1,3-Benzodioxol-5-amine 14338-36-4 16082-33-0, 1H-Pyrazole-3,5-diamine
16859-86-2 16867-03-1 19335-11-6, 1H-Indazol-5-amine 20103-09-7
22715-34-0 23244-87-3, 2,4,5-Pyrimidinetriamine 23894-07-7 24119-24-2
24905-87-1 28020-38-4 28491-52-3 29539-03-5 29705-39-3
31835-64-0 39267-74-8 41927-50-8 41946-53-6 42952-29-4
49647-58-7 50610-28-1 51387-92-9 55302-96-0 56932-44-6
58480-17-4 61224-35-9 61693-42-3 62496-02-0 62952-42-5
63969-46-0 64993-07-3 66566-48-1 66635-40-3 68391-32-2
69825-83-8 70643-19-5 71134-97-9 74918-21-1 77484-77-6
79352-72-0 82576-75-8 83220-31-9 83220-31-9D, mixts. containing
83763-47-7

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(hair dyeing compns. containing oxocyclopentenes)

IT 83960-83-2 84540-47-6 84540-50-1 85679-78-3 85926-99-4
87798-73-0 87814-15-1 90817-34-8 93841-24-8 93923-57-0
95576-89-9 102574-14-1 104333-09-7 108946-76-5 110102-86-8
110952-48-2 114402-54-9 115423-86-4 117907-43-4 126335-41-9
128729-30-6 130582-56-8 137290-86-9 144644-13-3 155601-17-5

159661-42-4 202525-73-3 202525-74-4 202525-75-5 202525-76-6
 202525-77-7 202525-78-8 202525-79-9 211872-02-5 215377-52-9
 220118-56-9 251450-62-1 346593-13-3 346684-81-9 380897-75-6
 380897-77-8 380897-79-0 381211-38-7 381211-39-8 381211-42-3
 381211-44-5 381211-96-7 381212-15-3 381212-17-5
 RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
 (hair dyeing compns. containing oxocyclopentenes)
 IT 58626-49-6P 108946-70-9P
 RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (hair dyeing compns. containing oxocyclopentenes)
 IT 75-52-5, reactions 78-92-2, 2-Butanol 97-86-9, Isobutyl methacrylate
 541-47-9
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (hair dyeing compns. containing oxocyclopentenes)
 IT 17190-21-5P 30434-70-9P 58626-47-4P 58626-48-5P 109892-46-8P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (hair dyeing compns. containing oxocyclopentenes)
 IT 500-85-6D, Indophenol, derivs.
 RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
 (hair dyeing compns. containing oxocyclopentenes)
 RN 500-85-6 HCAPLUS
 CN 2,5-Cyclohexadien-1-one, 4-[(4-hydroxyphenyl)imino]- (9CI) (CA INDEX NAME)



L84 ANSWER 16 OF 44 HCAPLUS COPYRIGHT 2004 ACS on STN
 AN 2001:923229 HCAPLUS
 DN 136:58496
 TI Hair dyeing compositions containing quinoxaline derivatives
 IN Gross, Wibke; Hoeffkes, Horst; Martin, Hans-Dieter; Moeller, Hinrich;
 Oberkobusch, Doris
 PA Henkel K.-G.a.A., Germany
 SO Ger. Offen., 22 pp.
 CODEN: GWXXBX
 DT Patent
 LA German
 FAN.CNT 1

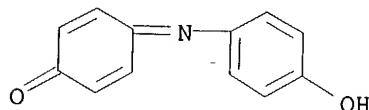
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 10029929	A1	20011220	DE 2000-10029929	20000617
	WO 2001097754	A2	20011227	WO 2001-EP6544	20010609
	WO 2001097754	A3	20020523		
	W: AU, JP, US				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				
	EP 1292271	A2	20030319	EP 2001-957836	20010609
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR				
PRAI	DE 2000-10029929	A	20000617		
	WO 2001-EP6544	W	20010609		

OS MARPAT 136:58496
AB Hair dye compns. contain at least one quinoxaline derivative containing e.g.,
C1-4 alkenyl, hydroxyalkyl, carboxyalkyl groups, and halo groups. Thus, 1,1,3-trimethylcyclo-2-penten[1,2-b]quinoxaline-2-carboxaldehyde (I) was prepared in a series of steps and formulated into a hair dye formulation containing I 4.4, Natrosol 250HR 2.0 and water to 100.0 g.
IC ICM A61K007-13
CC 62-3 (Essential Oils and Cosmetics)
Section cross-reference(s): 28
ST hair dye quinoxaline prepns
IT Amines, biological studies
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(aromatic, primary; hair dyeing compns. containing quinoxaline derivs.)
IT Nitriles, biological studies
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(aromatic; hair dyeing compns. containing quinoxaline derivs.)
IT Amines, biological studies
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(aryl, secondary; hair dyeing compns. containing quinoxaline derivs.)
IT Amines, biological studies
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(diamines, aromatic; hair dyeing compns. containing quinoxaline derivs.)
IT Hair preparations
(dyes; hair dyeing compns. containing quinoxaline derivs.)
IT Shampoos
(hair dyeing compns. containing quinoxaline derivs.)
IT Amino acids, biological studies
Phenols, biological studies
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(hair dyeing compns. containing quinoxaline derivs.)
IT Collagens, biological studies
Elastins
Keratins
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(hydrolyzates; hair dyeing compns. containing quinoxaline derivs.)
IT Peptides, biological studies
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(oligopeptides; hair dyeing compns. containing quinoxaline derivs.)
IT Protein hydrolyzates
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(soya; hair dyeing compns. containing quinoxaline derivs.)
IT Protein hydrolyzates
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(wheat gluten; hair dyeing compns. containing quinoxaline derivs.)
IT Glutens
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(wheat, hydrolyzates; hair dyeing compns. containing quinoxaline derivs.)
IT 56-87-1, L-Lysine, biological studies 59-48-3, Oxindol 59-92-7, DOPA, biological studies 60-18-4, L-Tyrosine, biological studies 62-53-3, Aniline, biological studies 63-91-2, L-Phenylalanine, biological studies 65-49-6, 4-Aminosalicylic acid 67-52-7, Barbituric acid 70-26-8, L-Ornithine 71-00-1, L-Histidine, biological studies 73-22-3, L-Tryptophan, biological studies 74-79-3, Arginine, biological studies 77-32-7 81-11-8, 4,4'-Diaminostilbene-2,2'-disulfonic acid 83-30-7, 2,4,6-Trihydroxybenzoic acid 83-33-0, Indan-1-one 83-56-7, 1,5-Dihydroxynaphthalene 84-65-1D, Anthraquinone, derivs. 87-02-5, 7-Amino-4-hydroxynaphthalene-2-sulfonic acid 87-66-1, Pyrogallol 88-21-1, 2-Aminobenzenesulfonic acid 88-74-4, 2-Nitroaniline 89-57-6,

5-Aminosalicylic acid 89-86-1, 2,4-Dihydroxybenzoic acid 90-05-1,
2-Methoxyphenol 90-15-3, 1-Naphthol 90-20-0, 4-Amino-5-
hydroxynaphthalene-2,7-disulfonic acid 91-29-2, 4'-Amino-4-
nitrodiphenylamine-2-sulfonic acid 92-44-4, 2,3-Dihydroxynaphthalene
92-65-9 95-55-6, 2-Aminophenol 95-70-5 95-88-5 96-91-3,
1-Hydroxy-2-amino-4,6-dinitrobenzene 96-93-5, 3-Amino-4-hydroxy-5-
nitrobenzene sulfonic acid 98-37-3, 3-Amino-4-hydroxybenzenesulfonic
acid 98-79-3, Pyrrolidone-5-carboxylic acid 99-05-8, 3-Aminobenzoic
acid 99-07-0, 3-Dimethylaminophenol 99-31-0, 5-Aminoisophthalic acid
99-50-3, 3,4-Dihydroxybenzoic acid 99-56-9, 1,2-Diamino-4-nitrobenzene
100-01-6, 4-NitroAniline, biological studies 101-77-9,
4,4'-Diaminodiphenylmethane 101-80-4, 4,4'-Diaminodiphenyl ether
102-32-9, 3,4-Dihydroxyphenylacetic acid 106-50-3, 1,4-Benzenediamine,
biological studies 107-95-9, β -Alanine 108-45-2,
1,3-Benzenediamine, biological studies 108-46-3, Resorcin, biological
studies 108-72-5, 1,3,5-Triaminobenzene 108-73-6, Phloroglucin
109-00-2, 3-Hydroxypyridine 110-85-0, Piperazidine, biological studies
110-86-1, Pyridine, biological studies 110-89-4, Piperidine, biological
studies 118-12-7, Fischer base 118-70-7, 4,5,6-Triaminopyrimidine
118-92-3, 2-Aminobenzoic acid 119-34-6, 4-Amino-2-nitrophenol
119-59-5, 4,4'-Diaminodiphenylsulfoxide 119-70-0, 4,4'-
Diaminodiphenylamine-2-sulfonic acid 119-72-2, 4-Amino-4'-nitrostilbene-
2,2'-disulfonic acid 120-80-9, 1,2-Benzenediol, biological studies
121-47-1, 3-Aminobenzenesulfonic acid 121-57-3, 4-Aminobenzenesulfonic
acid 123-30-8, 4-Aminophenol 123-31-9, Hydroquinone, biological
studies 123-75-1, Pyrrolidine, biological studies 139-65-1,
4,4'-Diaminodiphenylsulfide 141-84-4 141-86-6, 2,6-Diaminopyridine
142-08-5, 2-Hydroxypyridine 147-85-3, L-Proline, biological studies
149-91-7, Gallic acid, biological studies 150-13-0, 4-Aminobenzoic acid
150-19-6, 3-Methoxyphenol 150-75-4, 4-Methylaminophenol 150-76-5,
4-Methoxyphenol 156-81-0, 2,4-Diaminopyrimidine 288-13-1, Pyrazole
288-32-4, Imidazol, biological studies 288-88-0, 1H-1,2,4-Triazole
452-58-4, 2,3-Diaminopyridine 462-08-8, 3-Aminopyridine 480-66-0
488-87-9, 2,5-DiMethylresorcin 496-73-1, 4-Methylresorcin 498-94-2,
Piperidine-4-carboxylic acid 498-95-3, Piperidine-3-carboxylic acid
500-85-6D, Indophenol, derivs. 504-15-4 504-17-6,
Thiobarbituric acid 504-24-5, 4-Aminopyridine 504-29-0,
2-Aminopyridine 517-22-6, 2,4-Dimethyl-3-ethylpyrrole 531-86-2
533-31-3, 3,4-Methylenedioxyphenol 533-73-3, Hydroxyhydroquinone
535-75-1, Piperidine-2-carboxylic acid 535-87-5, 3,5-Diaminobenzoic acid
537-65-5, 4,4'-Diaminodiphenylamine 553-86-6, Cumaranone 556-03-6,
Tyrosine 570-24-1, 6-Nitro-o-toluidine 578-66-5, 8-Aminoquinoline
580-17-6, 3-Aminoquinoline 580-22-3, 2-Aminoquinoline 582-17-2,
2,7-Dihydroxynaphthalene 591-27-5, 3-Aminophenol 603-81-6,
2,3-Diaminobenzoic acid 606-55-3 606-57-5, 2-Amino-1-nitronaphthalene
608-08-2, 3-Indoxylacetate 608-25-3, 2-Methylresorcin 610-74-2,
2,5-Diaminobenzoic acid 610-81-1, 4-Amino-3-nitrophenol 611-03-0,
2,4-Diaminobenzoic acid 611-98-3, 4,4'-Diaminobenzophenone 614-82-4,
2,4-Dihydroxyphenylacetic acid 615-66-7 615-71-4, 1,2,4-
Triaminobenzene 616-45-5, Pyrrolidone 616-47-7, 1-Methylimidazole
619-05-6, 3,4-Diaminobenzoic acid 623-09-6, 4-Methylaminoaniline
626-64-2, 4-Hydroxypyridine 636-25-9, 2,5-Diaminophenol 876-87-9
934-22-5, 5-Aminobenzimidazole 1004-74-6, 2,4,5,6-Tetraaminopyrimidine
1004-75-7, 4-Hydroxy-2,5,6-Triaminopyrimidine 1123-55-3,
7-Aminobenzothiazole 1123-93-9, 5-Aminobenzothiazole 1125-60-6,
5-Aminoisoquinoline 1197-55-3, 4-Aminophenylacetic acid 1455-77-2,
3,5-Diamino-1,2,4-triazole 1571-72-8, 3-Amino-4-hydroxybenzoic acid
1820-80-0, 3-Aminopyrazole 1953-54-4, 5-Hydroxyindole 2374-03-0,
4-Amino-3-hydroxybenzoic acid 2380-84-9, 7-Hydroxyindole 2380-86-1,

6-Hydroxyindole 2380-94-1, 4-Hydroxyindole 2510-01-2,
1-Dicyanomethyleneindan 2654-52-6, 2,3-Dimethylbenzothiazolium tosylate
2785-06-0, 2,3-Dimethylbenzothiazolium iodide 2835-95-2,
2-Methyl-5-aminophenol 2835-99-6 2871-01-4, HC Red 3 3131-52-0,
5,6-Dihydroxyindole 3158-63-2, 1,3-Dimethylthiobarbituric acid
3167-49-5, 6-Aminonicotinic acid 3342-78-7, 2-Aminophenylacetic acid
3769-62-8, Gallion 3855-78-5, 2,3,4-Trimethylpyrrole 4318-76-7,
2,5-Diaminopyridine 4331-29-7, 7-Aminobenzimidazole 4506-66-5,
1,2,4,5-Tetraaminobenzene tetrahydrochloride 4928-43-2,
2-Dimethylamino-5-aminopyridine 5007-67-0, 3,3',4,4'-
Tetraaminobenzophenone 5099-39-8 5131-58-8 5192-03-0, 5-Aminoindole
5192-04-1, 7-Aminoindole 5192-23-4, 4-Aminoindole 5217-47-0,
1,3-Diethylthiobarbituric acid 5307-14-2, 1,4-Diamino-2-nitrobenzene
5318-27-4, 6-Aminoindole 5345-47-1, 2-Aminonicotinic acid 5392-28-9
5418-63-3, 1,2,3,3-Tetramethyl-3H-Indolium iodide 5434-20-8,
3-Aminophthalic acid 5718-83-2 5850-35-1, Acid blue 29 5930-28-9,
2,6-Dichloro-4-aminophenol 5959-52-4, 3-Amino-2-naphthoic acid
6201-65-6 6222-46-4, Palatine chrome green GC 6247-27-4, Mordant brown
4 6259-50-3, 6-Dimethylamino-4-hydroxy-2-naphthalenesulfonic acid
6358-09-4, 2-Amino-6-chloro-4-nitrophenol 6399-72-0,
6-Amino-7-hydroxynaphthalene-2-sulfonic acid 6628-04-2,
4-Aminoquinaldine 6967-12-0, 6-Aminoindazole 7411-49-6 7575-35-1
7749-47-5, 2-Amino-4-methoxy-6-methylpyrimidine 7768-28-7,
2-(2-Hydroxyethyl)phenol 10173-66-7, 1-Amino-4-nitro-2-(2-
nitrobenzylideneamino)-benzene 13754-19-3, 4,5-Diaminopyrimidine
14268-66-7, 3,4-Methylenedioxyaniline 14338-36-4, 3-Aminophenylacetic
acid 16082-33-0, 3,5-Diaminopyrazole 16214-27-0, Indan-1,2-dione
16859-86-2, 1,4-Dimethylquinolinium iodide 16867-03-1,
2-Amino-3-hydroxypyridine 19335-11-6, 5-Aminoindazole 20103-09-7
22715-34-0, 2-Hydroxy-4,5,6-Triaminopyrimidine 23244-87-3,
2,4,5-Triaminopyridine 23894-07-7 24119-24-2, N,N-Bis[2-(4-
aminophenoxy)-ethyl]methylamine trihydrochloride 24905-87-1, HC Red 7
28020-38-4, 2,3-Diamino-6-methoxypyridine 28491-52-3 29539-03-5,
5,6-Dihydroxyindoline 29705-39-3 31835-64-0, 3-Amino-3'-nitrobiphenyl
34572-45-7, 2-Nitro-1-amino-4-bis(2-hydroxyethylamino)benzene 35011-47-3
41946-53-6 42952-29-4 50610-28-1, 2-Chloro-5-nitro-N-hydroxyethyl-1,4-
phenylenediamine 51387-92-9 55302-96-0 56932-44-6, HC Yellow 5
58480-17-4 61224-35-9 61693-42-3, 3-Amino-2,4-dichlorophenol
62496-02-0, 2-Methylamino-4,5,6-triaminopyrimidine 63886-74-8
63969-46-0 64993-07-3 66566-48-1 66635-40-3, 4,4'-Diaminostilbene
dihydrochloride 69825-83-8, 6-Nitro-2,5-diaminopyridine 70643-19-5,
2,4-Diaminophenoxyethanol 71134-97-9 74918-21-1, 1,3-Bis(2,4-
diaminophenoxy)propane tetrahydrochloride 77484-77-6,
3-Amino-6-methylamino-2-nitropyridine 79352-72-0 82576-75-8, HC Violet
1 83763-47-7 84540-47-6, 2,6-Dihydroxy-3,4-dimethylpyridine
84540-50-1, 6-Methyl-3-amino-2-chlorophenol 85679-78-3,
3,5-Diamino-2,6-dimethoxypyridine 85926-99-4, 4-Hydroxyindoline
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(hair dyeing compns. containing quinoxaline derivs.)
IT 90817-34-8 93841-24-8 93923-57-0 95576-89-9, HC Red 10
104333-09-7, 2-Hydroxymethyl-4-aminophenol 110102-86-8,
2-Methyl-5-amino-4-chlorophenol 110952-48-2 114402-54-9,
1,3-Bis(4-aminophenylamino)propane 115423-86-4, 1,3-Diamino-2,4-
dimethoxybenzene 117907-43-4 128729-30-6, 1,3-Bis(N-4-aminophenyl)-
hydroxyethylamino-2-propanol 130582-56-8, 1,3-Bis(4-aminophenylamino)-
propanol 137290-86-9 144644-13-3, 1,8-Bis(2,5-diaminophenoxy)-3,6-
dioxaoctane tetrahydrochloride 155601-17-5, 4,5-Diamino-1-(2-
hydroxyethyl)pyrazole 159661-42-4, 2,5-Dihydroxy-4-morpholinoaniline
202525-71-1 202525-73-3, 2,4,5-Triaminophenol trihydrochloride

202525-74-4, Pentaaminobenzene pentahydrochloride 202525-75-5,
 Hexaaminobenzene hexahydrochloride 202525-76-6, 2,4,6-Triaminoresorcin
 trihydrochloride 202525-77-7 202525-78-8, 4,6-Diaminopyrogallol
 dihydrochloride 202525-79-9 211872-02-5 215377-52-9,
 3,4-Methylenediaminoaniline 220118-56-9 223383-77-5,
 4-Amino-3-hydroxynaphthalenesulfonic acid 346593-13-3 380897-57-4
 380897-58-5 380897-59-6 380897-60-9 380897-61-0 380897-62-1
 380897-63-2 380897-64-3 380897-65-4 380897-66-5 380897-67-6
 380897-68-7 380897-69-8 380897-75-6 380897-77-8 380897-79-0
 RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
 (hair dyeing compns. containing quinoxaline derivs.)
 IT 380897-49-4P 380897-56-3P
 RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological
 study); PREP (Preparation); USES (Uses)
 (hair dyeing compns. containing quinoxaline derivs.)
 IT 78-92-2, 2-Butanol 95-54-5, 1,2-Benzenediamine, reactions 541-47-9
 4760-34-3
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (hair dyeing compns. containing quinoxaline derivs.)
 IT 30434-70-9P 108946-70-9P 109892-46-8P 380897-50-7P 380897-51-8P
 380897-52-9P 380897-54-1P 380897-55-2P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (hair dyeing compns. containing quinoxaline derivs.)
 IT 500-85-6D, Indophenol, derivs.
 RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
 (hair dyeing compns. containing quinoxaline derivs.)
 RN 500-85-6 HCAPLUS
 CN 2,5-Cyclohexadien-1-one, 4-[(4-hydroxyphenyl)imino]- (9CI) (CA INDEX
 NAME)



L84 ANSWER 17 OF 44 HCAPLUS COPYRIGHT 2004 ACS on STN
 AN 2001:489199 HCAPLUS
 DN 135:81831

TI Hair dyeing compositions containing heterocyclic compounds
 IN Rose, David; Hoeffkes, Horst; Meinigke, Bernd
 PA Henkel KGaA, Germany
 SO PCT Int. Appl., 32 pp.
 CODEN: PIXXD2

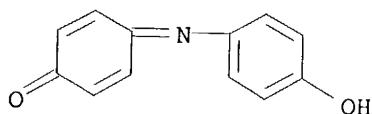
DT Patent
 LA German

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001047477	A2	20010705	WO 2000-EP12893	20001218
	WO 2001047477	A3	20020207		
				W: AU, BR, CA, CN, CZ, HU, JP, NO, PL, RU, SK, US, VN	
				RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,	
				PT, SE, TR	
	DE 10061990	A1	20010705	DE 2000-10061990	20001213
	EP 1244419	A2	20021002	EP 2000-991207	20001218

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
IE, FI, CY, TR
PRAI DE 1999-19962873 A 19991224
DE 2000-10061990 A 20001213
WO 2000-EP12893 W 20001218
OS MARPAT 135:81831
AB Hair dyeing contain as the coloring component, ACH:BCH:A' (where A and A' = e.g., a heterocyclic compound, and B is a part of a heterocyclic compound). The inventive agents are especially useful for dyeing keratin containing fibers, particularly in the absence of oxidizing agents. The compds. of the invention were added to a hair cream formulation obtained from anionic, zwitterionic, and nonionic surfactants, sodium sulfite and ammonium sulfate and a color strengthener.
IC ICM A61K007-00
CC 62-3 (Essential Oils and Cosmetics)
ST hair dye heterocyclic compd
IT Alcohols, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(C12-18; hair dyeing compns. containing heterocyclic compds.)
IT Alcohols, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(C16-18, ethoxylated; hair dyeing compns. containing heterocyclic compds.)
IT Surfactants
(anionic; hair dyeing compns. containing heterocyclic compds.)
IT Hair preparations
(dyes; hair dyeing compns. containing heterocyclic compds.)
IT Surfactants
(nonionic; hair dyeing compns. containing heterocyclic compds.)
IT Surfactants
(zwitterionic; hair dyeing compns. containing heterocyclic compds.)
IT 36574-66-0D, N-coco acyl derivs.
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(cocoamidopropyl betaine; hair dyeing compns. containing heterocyclic compds.)
IT 71-00-1, L-Histidine, biological studies 84-65-1, Anthraquinone
98-79-3, Pyrrolidone-5-carboxylic acid 109-00-2, 3-HydroxyPyridine
110-86-1, Pyridine, biological studies 110-89-4, Piperidine, biological studies
123-75-1, Pyrrolidine, biological studies 142-08-5,
2-Hydroxypyridine 147-85-3, L-Proline, biological studies 288-13-1,
Pyrazole 288-32-4, Imidazole, biological studies 288-88-0,
1H-1,2,4-Triazole 498-94-2, Piperidine-4-carboxylic acid 498-95-3,
Piperidine-3-carboxylic acid 500-85-6, Indophenol 535-75-1,
Piperidine-2-carboxylic acid 616-45-5, Pyrrolidone 616-47-7,
1-Methylimidazole 626-64-2, 4-HydroxyPyridine 7722-84-1, Hydrogen peroxide, biological studies 31905-57-4, Nitrophenylenediamine 43093-74-9 83138-08-3, Dehyton K
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(hair dyeing compns. containing heterocyclic compds.)
IT 500-85-6, Indophenol
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(hair dyeing compns. containing heterocyclic compds.)
RN 500-85-6 HCPLUS
CN 2,5-Cyclohexadien-1-one, 4-[(4-hydroxyphenyl)imino]- (9CI) (CA INDEX)

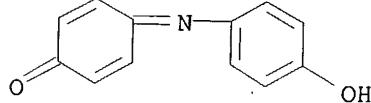
NAME)



L84 ANSWER 18 OF 44 HCAPLUS COPYRIGHT 2004 ACS on STN
 AN 2001:488453 HCAPLUS
 DN 135:81829
 TI Hair dyeing compositions containing heterocyclic compounds
 IN Rose, David; Hoeffkes, Horst; Meinigke, Bernd
 PA Henkel K.-G.a.A., Germany
 SO Ger. Offen., 18 pp.
 CODEN: GWXXBX
 DT Patent
 LA German
 FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 10061990 WO 2001047477 WO 2001047477	A1 A2 A3	20010705 20010705 20020207	DE 2000-10061990 WO 2000-EP12893	20001213 20001218
	W: AU, BR, CA, CN, CZ, HU, JP, NO, PL, RU, SK, US, VN RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				
	EP 1244419	A2	20021002	EP 2000-991207	20001218
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR				
PRAI	DE 1999-19962873 DE 2000-10061990 WO 2000-EP12893	A1 A W	19991224 20001213 20001218		
OS	MARPAT 135:81829				
AB	Hair dyeing compns. contain as the coloring component, ACH:BCH:A' (where A and A' = e.g., a heterocyclic compound, and B is a part of cyclic compound). The compds. of the invention were added to a hair cream formulation obtained from anionic, zwitterionic, and nonionic surfactants, sodium sulfite and ammonium sulfate and a color strengthener.				
IC	ICM A61K007-13				
CC	62-3 (Essential Oils and Cosmetics)				
ST	hair dye heterocycle				
IT	Alcohols, biological studies RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses) (C12-18; hair dyeing compns. containing heterocycles)				
IT	Alcohols, biological studies RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses) (C16-18, ethoxylated; hair dyeing compns. containing heterocycles)				
IT	Surfactants (anionic; hair dyeing compns. containing heterocycles)				
IT	Hair preparations (creams; hair dyeing compns. containing heterocycles)				
IT	Hair preparations (dyes, oxidative; hair dyeing compns. containing heterocycles)				
IT	Hair preparations				

IT (dyes; hair dyeing compns. containing heterocycles)
 IT Shampoos
 IT (hair dyeing compns. containing heterocycles)
 IT Surfactants
 IT (nonionic; hair dyeing compns. containing heterocycles)
 IT Surfactants
 IT (zwitterionic; hair dyeing compns. containing heterocycles)
 IT 71-00-1, L-Histidine, biological studies 84-65-1, Anthraquinone
 98-79-3, Pyrrolidone-5-carboxylic acid 109-00-2, 3-HydroxyPyridine
 110-86-1, Pyridine, biological studies 110-89-4, Piperidine, biological
 studies 123-75-1, Pyrrolidine, biological studies 142-08-5,
 2-HydroxyPyridine 147-85-3, L-Proline, biological studies 288-13-1,
 Pyrazole 288-32-4, Imidazole, biological studies 288-88-0,
 1H-1,2,4-Triazole 498-94-2, Piperidine-4-carboxylic acid 498-95-3,
 Piperidine-3-carboxylic acid 500-85-6, Indophenol 535-75-1,
 Piperidine-2-carboxylic acid 616-45-5, Pyrrolidone 616-47-7,
 1-MethylImidazole 626-64-2, 4-HydroxyPyridine 9004-82-4, Texapon N28
 31905-57-4, Nitrophenylenediamine 43093-74-9 83138-08-3, Dehyton K
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
 (Uses)
 IT (hair dyeing compns. containing heterocycles)
 IT 500-85-6, Indophenol
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
 (Uses)
 RN (hair dyeing compns. containing heterocycles)
 RN 500-85-6 HCPLUS
 CN 2,5-Cyclohexadien-1-one, 4-[(4-hydroxyphenyl)imino]- (9CI) (CA INDEX
 NAME)



L84 ANSWER 19 OF 44 HCPLUS COPYRIGHT 2004 ACS on STN
 AN 2001:298859 HCPLUS

DN 134:315874

TI Dibenzopyrroles for use in dyeing keratin fibers
 IN Moeller, Hinrich; Oberkobusch, Doris; Hoeffkes, Horst
 PA Henkel K.-G.a.A., Germany
 SO Ger. Offen., 12 pp.

CODEN: GWXXBX

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 19951135 WO 2001030312	A1 A1	20010426 20010503	DE 1999-19951135 WO 2000-EP10198	19991023 20001017
	W: AU, JP, US RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				

PRAI DE 1999-19951135 A 19991023

OS MARPAT 134:315874

AB Dibenzopyrroles may be combined with other organic compds. for use in hair dye formulations. Other compds. may include 2-chloro-p-phenylenediamine,

4-aminophenol, o-phenylenediamine, 3,4-methylenedioxyaniline, etc. In addition, compds. such as 1,2,3,3-tetramethyl-3H-indolium methanesulfonate, barbituric acid, thiobarbituric acid, oxindole, etc. may be added.

IC ICM A61K007-13

CC 62-3 (Essential Oils and Cosmetics)

ST hair dye dibenzopyrrole deriv

IT Oxidizing agents

Shampoos
(dibenzopyrroles for use in dyeing keratin fibers)

IT Keratins
RL: PEP (Physical, engineering or chemical process); PROC (Process)
(dibenzopyrroles for use in dyeing keratin fibers)

IT Hair preparations
(dyes, oxidative; dibenzopyrroles for use in dyeing keratin fibers)

IT 59-48-3, Oxindole 62-53-3, Aniline, biological studies 65-49-6, 4-Aminosalicylic acid 67-52-7, Barbituric acid 71-00-1, Histidine, biological studies 77-32-7 81-11-8, 4,4'-Diaminostilbene-2,2'-disulfonic acid 83-30-7, 2,4,6-Trihydroxybenzoic acid 83-56-7, 1,5-Dihydroxynaphthalene 84-65-1D, Anthraquinone, derivs. 86-74-8D, Dibenzopyrrole, derivs. 87-02-5, 7-Amino-4-hydroxynaphthalene-2-sulfonic acid 87-66-1, Pyrogallol 88-21-1, 2-Aminobenzenesulfonic acid 89-57-6, 5-Aminosalicylic acid 89-86-1, 2,4-Dihydroxybenzoic acid 90-05-1, 2-Methoxyphenol 90-15-3, 1-Naphthol 90-20-0, 4-Amino-5-hydroxynaphthalene-2,7-disulfonic acid 92-44-4, 2,3-Dihydroxynaphthalene 92-65-9 95-54-5, 1,2-Benzenediamine, biological studies 95-55-6, 2-Aminophenol 95-70-5, 2,5-Diaminotoluene 95-88-5, 4-Chlororesorcinol 98-37-3, 3-Amino-4-hydroxybenzenesulfonic acid 98-79-3, Pyrrolidone-5-carboxylic acid 99-05-8, 3-Aminobenzoic acid 99-07-0, 3-Dimethylaminophenol 99-31-0, 5-Aminoisophthalic acid 99-50-3, 3,4-Dihydroxybenzoic acid 100-01-6, 4-Nitroaniline, biological studies 101-77-9, 4,4'-Diaminodiphenylmethane 101-80-4, 4,4'-Diaminodiphenylether 103-82-2, Phenylacetic acid, biological studies 106-50-3, p-Phenylenediamine, biological studies 108-45-2, 1,3-Benzenediamine, biological studies 108-46-3, Resorcinol, biological studies 108-72-5, 1,3,5-Triaminobenzene 108-73-6, Phloroglucin 109-00-2, 3-Hydroxypyridine 110-85-0, Piperazidine, biological studies 110-86-1, Pyridine, biological studies 110-89-4, Piperidine, biological studies 118-12-7, 1,3,3-Trimethyl-2-methyleneindoline 118-70-7, 4,5,6-Triaminopyrimidine 118-92-3, 2-Aminobenzoic acid 119-59-5, 4,4'-Diaminodiphenylsulfoxide 119-70-0, 4,4'-Diaminodiphenylamine-2-sulfonic acid 120-80-9, Pyrocatechol, biological studies 121-47-1, 3-Aminobenzenesulfonic acid 121-57-3, 4-Aminobenzenesulfonic acid 123-30-8, 4-Aminophenol 123-31-9, Hydroquinone, biological studies 123-75-1, Pyrrolidine, biological studies 139-65-1, 4,4'-Diaminodiphenylsulfide 141-84-4, Rhodanine 141-86-6, 2,6-Diaminopyridine 142-08-5, 2-Hydroxypyridine 147-85-3, Proline, biological studies 149-91-7, Gallic acid, biological studies 150-13-0, 4-Aminobenzoic acid 150-19-6, 3-Methoxyphenol 150-75-4, 4-Methylaminophenol 150-76-5, 4-Methoxyphenol 156-81-0, 2,4-Diaminopyrimidine 288-13-1, Pyrazole 288-32-4, Imidazole, biological studies 288-88-0, 1H-1,2,4-Triazole 452-58-4, 2,3-Diaminopyridine 462-08-8, 3-Aminopyridine 480-66-0 488-87-9, 2,5-Dimethylresorcinol 496-73-1, 4-Methylresorcinol 498-94-2, Piperidine-4-carboxylic acid 498-95-3, Piperidine-3-carboxylic acid 500-85-6D, Indophenol, derivs. 504-15-4, 5-Methylresorcinol 504-17-6, Thiobarbituric acid 504-24-5, 4-Aminopyridine 504-29-0, 2-Aminopyridine 517-22-6, 2,4-Dimethyl-3-ethylpyrrole 533-31-3, 3,4-Methylenedioxophenol 533-73-3, Hydroxyhydroquinone 535-75-1, Piperidine-2-carboxylic acid 535-87-5, 3,5-Diaminobenzoic acid

537-65-5, 4,4'-Diaminodiphenylamine 553-86-6, Cumaranone 578-66-5,
8-Aminoquinoline 580-17-6, 3-Aminoquinoline 580-22-3, 2-Aminoquinoline
582-17-2, 2,7-Dihydroxynaphthalene 591-27-5, 3-Aminophenol 603-81-6,
2,3-Diaminobenzoic acid 606-55-3 608-08-2, 3-Indoxyl acetate
608-25-3, 2-Methylresorcinol 610-74-2, 2,5-Diaminobenzoic acid
611-03-0, 2,4-Diaminobenzoic acid 611-98-3, 4,4'-Diaminobenzophenone
615-66-7, 2-Chloro-p-phenylenediamine 615-71-4, 1,2,4-Triaminobenzene
616-45-5, Pyrrolidone 616-47-7, 1-Methylimidazole 619-05-6,
3,4-Diaminobenzoic acid 623-09-6, 4-Methylaminoaniline 626-64-2,
4-Hydroxypyridine 636-25-9, 2,5-Diaminophenol 876-87-9 934-22-5,
5-Aminobenzimidazole 1004-74-6, 2,4,5,6-Tetraaminopyrimidine
1004-75-7, 4-Hydroxy-2,5,6-triaminopyrimidine 1123-55-3,
7-Aminobenzothiazole 1123-93-9, 5-Aminobenzothiazole 1125-60-6,
5-Aminoisoquinoline 1197-55-3, 4-AminoPhenylacetic acid 1455-77-2,
3,5-Diamino-1,2,4-triazole 1483-97-2 1484-05-5 1571-72-8,
3-Amino-4-hydroxybenzoic acid 1820-80-0, 3-Aminopyrazole 1953-54-4,
5-Hydroxyindole 2374-03-0, 4-Amino-3-hydroxybenzoic acid 2380-84-9,
7-Hydroxyindole 2380-86-1, 6-Hydroxyindole 2380-94-1, 4-Hydroxyindole
2654-52-6, 2,3-Dimethylbenzothiazolium p-toluenesulfonate 2785-06-0,
2,3-Dimethylbenzothiazolium iodide 2835-95-2, 2-Methyl-5-aminophenol
2835-99-6, 3-Methyl-4-aminophenol 2871-01-4, 2-Nitro-4-amino-1-(2-
hydroxyethylamino)benzene 3131-52-0, 5,6-Dihydroxyindole 3158-63-2,
1,3-Dimethylthiobarbituric acid 3167-49-5, 6-Aminonicotinic acid
3215-37-0 3342-78-7, 2-AminoPhenylacetic acid 3855-78-5,
2,3,4-Trimethylpyrrole 4318-76-7, 2,5-Diaminopyridine 4331-29-7,
7-Aminobenzimidazole 4506-66-5, 1,2,4,5-Tetraaminobenzene
tetrahydrochloride 4928-43-2, 2-Dimethylamino-5-aminopyridine
5007-67-0, 3,3',4,4'-Tetraaminobenzophenone 5131-58-8 5192-03-0,
5-Aminoindole 5192-04-1, 7-Aminoindole 5192-23-4, 4-Aminoindole
5217-47-0, 1,3-Diethylthiobarbituric acid 5318-27-4, 6-Aminoindole
5345-47-1, 2-Aminonicotinic acid 5418-63-3, 1,2,3,3-Tetramethyl-3H-
indolium iodide 5434-20-8, 3-Aminophthalic acid 5718-83-2,
Rhodanine-3-acetic acid 5930-28-9, 2,6-Dichloro-4-aminophenol
5959-52-4, 3-Amino-2-naphthoic acid 6201-65-6, 2-Chlororesorcinol
6259-50-3, 6-Dimethylamino-4-hydroxy-2-naphthalenesulfonic acid
6358-09-4, 2-Amino-6-chloro-4-nitrophenol 6399-72-0,
6-Amino-7-hydroxynaphthalene-2-sulfonic acid 6628-04-2,
4-Aminoquinaldine 6967-12-0, 6-Aminoindazole 7411-49-6 7570-45-8
7575-35-1 7749-47-5, 2-Amino-4-methoxy-6-methylpyrimidine 7768-28-7,
2-(2-Hydroxyethyl)phenol 13754-19-3, 4,5-Diaminopyrimidine 14268-66-7,
3,4-Methylenedioxyaniline 14338-36-4, 3-AminoPhenylacetic acid
14501-66-7 16082-33-0, 3,5-Diaminopyrazole 16867-03-1,
2-Amino-3-hydroxypyridine 18073-18-2 19335-11-6, 5-Aminoindazole
20103-09-7, 2,5-Dichloro-p-phenylenediamine 21240-56-2 22715-34-0,
2-Hydroxy-4,5,6-triaminopyrimidine 23244-87-3, 2,4,5-Triaminopyridine
23894-07-7, 3,6-Dihydroxy-2,7-naphthalenedisulfonic acid 24119-24-2,
N,N-Bis-[2-(4-aminophenoxy)ethyl]methylamine trihydrochloride
24144-00-1, 1,4-Dimethylquinaldinium iodide 28020-38-4,
2,3-Diamino-6-methoxypyridine 28491-52-3 29539-03-5,
5,6-Dihydroxyindoline 29705-39-3 31905-57-4D, Nitrophenylenediamine,
derivs. 41946-53-6 42952-29-4, 1-Ethyl-2-methylnaphtho[1,2-
d]thiazolium p-toluenesulfonate 43093-74-9D, Nitroaminophenol, derivs.
50610-28-1 51387-92-9 55302-96-0, 2-Methyl-5-(2-hydroxyethylamino)-
phenol 58480-17-4, 1,2-Dimethylnaphtho[1,2-d]thiazolium
p-toluenesulfonate 61224-35-9 61693-42-3, 3-Amino-2,4-dichlorophenol
62496-02-0, 2-Methylamino-4,5,6-triaminopyrimidine 66566-48-1
66635-40-3, 4,4'-Diaminostilbene dihydrochloride 70643-19-5,
2,4-Diaminophenoxyethanol 74918-21-1, 1,3-Bis-(2,4-
diaminophenoxy)propane tetrahydrochloride 79352-72-0,

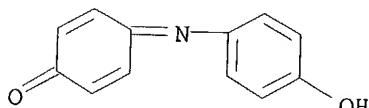
4-Amino-2-aminomethylphenol 83763-47-7 84540-47-6,
 2,6-Dihydroxy-3,4-dimethylpyridine 84540-50-1, 6-Methyl-3-amino-2-
 chlorophenol 85679-78-3, 3,5-Diamino-2,6-dimethoxypyridine 85926-99-4,
 4-Hydroxyindoline 90817-34-8, 3-Amino-2-methylamino-6-methoxypyridine
 93841-24-8, 2-(2,5-Diaminophenyl)ethanol 104333-09-7,
 2-Hydroxymethyl-4-aminophenol 110102-86-8, 2-Methyl-5-amino-4-
 chlorophenol 110952-48-2 114402-54-9, 1,3-Bis-(4-
 aminophenylamino)propane 115423-86-4, 1,3-Diamino-2,4-dimethoxybenzene
 117907-43-4 128729-30-6, 1,3-Bis-[(4-aminophenyl)-2-
 hydroxyethylamino]propan-2-ol 130582-56-8, 1,3-Bis-(4-
 aminophenylamino)propan-2-ol 137290-86-9, 5-(2-Hydroxyethylamino)-4-
 methoxy-2-methylphenol 159661-42-4, 2,5-Dihydroxy-4-morpholinoaniline
 166035-63-8 202525-71-1 202525-73-3, 2,4,5-Triaminophenol
 trihydrochloride 202525-74-4, Pentaaminobenzene pentahydrochloride
 202525-75-5, Hexaaminobenzene hexahydrochloride 202525-76-6,
 2,4,6-Triaminoresorcinol trihydrochloride 202525-77-7 202525-78-8,
 4,6-Diaminopyrogallol dihydrochloride 202525-79-9 215377-52-9,
 3,4-Methylenediaminoaniline 220118-56-9 223383-77-5,
 4-Amino-3-hydroxynaphthalenesulfonic acid
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
 (Uses)

IT (dibenzopyrroles for use in dyeing **keratin** fibers)
 500-85-6D, Indophenol, derivs.

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
 (Uses)

RN (dibenzopyrroles for use in dyeing **keratin** fibers)
 500-85-6 HCPLUS

CN 2,5-Cyclohexadien-1-one, 4-[(4-hydroxyphenyl)imino]- (9CI) (CA INDEX
 NAME)



L84 ANSWER 20 OF 44 HCPLUS COPYRIGHT 2004 ACS on STN
 AN 2001:298858 HCPLUS
 DN 134:315873
 TI Aromatic aldehydes and ketones with imidazoles as coloring agents for
 keratin fibers

IN Moeller, Hinrich; Oberkobusch, Doris; Hoeffkes, Horst
 PA Henkel K.-G.a.A., Germany

SO Ger. Offen., 14 pp.
 CODEN: GWXXBX

DT Patent
 LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 19951134	A1	20010426	DE 1999-19951134	19991023
	WO 2001034106	A1	20010517	WO 2000-EP10125	20001014
	W: AU, BR, CA, CN, CZ, HU, JP, NO, PL, RU, SK, US, VN				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
EP	1235549	A1	20020904	EP 2000-971379	20001014
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,				

IE, FI, CY
JP 2003513898 T2 20030415 JP 2001-536107 20001014
US 6790239 B1 20040914 US 2002-110915 20020418
PRAI DE 1999-19951134 A 19991023
WO 2000-EP10125 W 20001014
OS MARPAT 134:315873
AB Oxidative hair dyes containing aromatic aldehydes and ketones combined with imidazoles and other heterocyclic compds. are disclosed. Aromatic components may include salicylaldehyde, 3-hydroxybenzaldehyde, 4-hydroxybenzaldehyde, o-anisaldehyde, etc. Heterocyclic components may include 1,4-dimethylquinolinium salts, 1,2-dimethylquinolinium salts, 1,4-dimethylpyridinium salts, 3-ethyl-2-methylbenzothiazolium salts, etc. These may be combined with rhodanine, barbituric acid, thiobarbituric acid, oxindole, etc.
IC ICM A61K007-13
CC 62-3 (Essential Oils and Cosmetics)
ST oxidative hair dye arom ketone
IT Shampoos
(aromatic aldehydes and ketones with imidazoles as coloring agents for keratin fibers)
IT Keratins
RL: BPR (Biological process); BSU (Biological study, unclassified); RCT (Reactant); BIOL (Biological study); PROC (Process); RACT (Reactant or reagent)
(aromatic aldehydes and ketones with imidazoles as coloring agents for keratin fibers)
IT Alkaline earth salts
Bromides, biological studies
Chlorides, biological studies
Iodides, biological studies
RL: BUU (Biological use, unclassified); PEP (Physical, engineering or chemical process); BIOL (Biological study); PROC (Process); USES (Uses)
(aromatic aldehydes and ketones with imidazoles as coloring agents for keratin fibers)
IT Hair preparations
(dyes, oxidative; aromatic aldehydes and ketones with imidazoles as coloring agents for keratin fibers)
IT 59-48-3, Oxindole 67-52-7, Barbituric acid 71-00-1, Histidine, biological studies 75-75-2D, Methanesulfonic acid, salts 75-93-4, Methylsulfate 84-65-1D, Anthraquinone, derivs. 89-84-9 90-02-8, Salicylaldehyde, biological studies 93-02-7, 2,5-Dimethoxybenzaldehyde 95-01-2, 2,4-Dihydroxybenzaldehyde 98-11-3D, Benzenesulfonic acid, salts, biological studies 98-79-3, Pyrrolidone-5-carboxylic acid 99-93-4, 4-Hydroxyacetophenone 100-83-4, 3-Hydroxybenzaldehyde 104-15-4D, p-Toluenesulfonic acid, salts 109-00-2, 3-Hydroxypyridine 110-85-0, Piperazidine, biological studies 110-86-1, Pyridine, biological studies 110-89-4, Piperidine, biological studies 120-14-9, 3,4-Dimethoxybenzaldehyde 120-57-0, Piperonal 121-33-5, Vanillin 123-08-0, 4-Hydroxybenzaldehyde 123-11-5, p-Anisaldehyde, biological studies 123-75-1, Pyrrolidine, biological studies 135-02-4, o-Anisaldehyde 139-85-5, 3,4-Dihydroxybenzaldehyde 141-84-4, Rhodanine 142-08-5, 2-Hydroxypyridine 147-85-3, Proline, biological studies 288-13-1, Pyrazole 288-32-4, Imidazole, biological studies 288-88-0, 1H-1,2,4-Triazole 458-36-6, Coniferylaldehyde 487-70-7, 2,4,6-Trihydroxybenzaldehyde 498-94-2, Piperidine-4-carboxylic acid 498-95-3, Piperidine-3-carboxylic acid 500-85-6D, Indophenol, derivs. 504-17-6, Thiobarbituric acid 535-75-1, Piperidine-2-carboxylic acid 553-86-6, Cumaranone 574-96-9, 1-Hydroxy-2-naphthaldehyde 582-24-1, 2-Hydroxyacetophenone 606-23-5,

Indan-1,3-dione 608-08-2, 3-Indoxylacetate 613-45-6,
2,4-Dimethoxybenzaldehyde 613-84-3, 2-Hydroxy-5-methylbenzaldehyde
616-45-5, Pyrrolidone 616-47-7, 1-Methylimidazole 621-59-0,
Isovanillin 626-64-2, 4-Hydroxypyridine 698-27-1, 2-Hydroxy-4-
methylbenzaldehyde 708-06-5, 2-Hydroxy-1-naphthaldehyde 824-42-0,
2-Hydroxy-3-methylbenzaldehyde 1080-12-2, 4-Hydroxy-3-
methoxybenzylideneacetone 1080-74-6 1121-26-2 1194-98-5,
2,5-Dihydroxybenzaldehyde 1493-13-6D, Trifluoromethanesulfonic acid,
salts 2144-08-3, 2,3,4-Trihydroxybenzaldehyde 2233-18-3,
3,5-Dimethyl-4-hydroxybenzaldehyde 2420-16-8, 3-Chloro-4-
hydroxybenzaldehyde 2510-01-2 2538-87-6, 4-Hydroxycinnamaldehyde
2786-34-7, 2,3-Dimethylbenzothiazolium chloride 3158-63-2,
1,3-Dimethylthiobarbituric acid 3160-35-8 3392-97-0,
2,6-Dimethoxybenzaldehyde 3541-42-2, 2-Hydroxycinnamaldehyde 3653-04-1
3859-41-4, 1,3-Cyclopentanedione 3934-87-0, 3,4-Dihydroxy-5-
methoxybenzaldehyde 4680-08-4, 2,4,6-Trimethylpyrylium chloride
5217-47-0, 1,3-Diethylthiobarbituric acid 5284-74-2 5392-12-1,
2-Methoxy-1-naphthaldehyde 5418-67-7 5718-83-2, Rhodanine-3-acetic
acid 7770-45-8, 4-Hydroxy-1-naphthaldehyde 10031-82-0,
4-Ethoxybenzaldehyde 13677-79-7, 3,4,5-Trihydroxybenzaldehyde
13984-15-1 15174-69-3, 4-Hydroxy-3-methylbenzaldehyde 15626-30-9
15971-29-6, 4-Methoxy-1-naphthaldehyde 16872-11-0D, Tetrafluoroboric
acid, salts 19224-32-9 23302-83-2 24677-78-9, 2,3-
Dihydroxybenzaldehyde 26153-38-8, 3,5-Dihydroxybenzaldehyde 27945-16-0
28141-13-1 29814-03-7, 3-Ethyl-2-methylbenzothiazolium chloride
31905-57-4D, Nitrophenylenediamine, derivs. 32353-56-3 35094-87-2,
2,4,5-Trihydroxybenzaldehyde 36232-82-3 38039-57-5 38078-47-6
43093-74-9D, Nitroaminophenol, derivs. 55745-70-5 56405-37-9
56405-66-4 57439-26-6 57439-29-9 62439-66-1 63149-01-9
64274-81-3 79407-66-2 87345-53-7 91420-11-0 198704-94-8
199107-25-0 200128-68-3 293742-81-1 335448-84-5 335448-85-6
335448-87-8 335448-89-0 335448-91-4 335448-92-5 335448-94-7
335449-08-6 335449-09-7

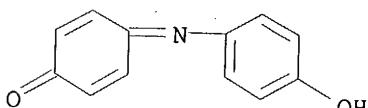
RL: BUU (Biological use, unclassified); PEP (Physical, engineering or
chemical process); BIOL (Biological study); PROC (Process); USES (Uses)
(aromatic aldehydes and ketones with imidazoles as coloring agents for
keratin fibers)

IT 500-85-6D, Indophenol, derivs.

RL: BUU (Biological use, unclassified); PEP (Physical, engineering or
chemical process); BIOL (Biological study); PROC (Process); USES (Uses)
(aromatic aldehydes and ketones with imidazoles as coloring agents for
keratin fibers)

RN 500-85-6 HCPLUS

CN 2,5-Cyclohexadien-1-one, 4-[(4-hydroxyphenyl)imino]- (9CI) (CA INDEX
NAME)



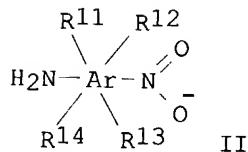
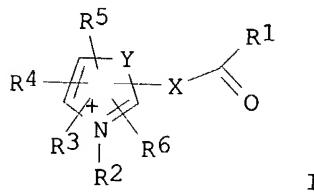
L84 ANSWER 21 OF 44 HCPLUS COPYRIGHT 2004 ACS on STN
AN 2001:114931 HCPLUS
DN 134:183269
TI Dyeing agent for keratinous fibers
IN Moller, Hinrich; Oberkobusch, Doris; Hoffkes, Horst

PA Henkel Kommanditgesellschaft auf Aktien, Germany
 SO PCT Int. Appl., 28 pp.
 CODEN: PIXXD2

DT Patent
 LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001010379	A2	20010215	WO 2000-EP7405	20000731
	WO 2001010379	A3	20011115		
	W: AU, JP, US				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	DE 19937289	A1	20010215	DE 1999-19937289	19990806
	EP 1200050	A2	20020502	EP 2000-956364	20000731
	EP 1200050	B1	20040922		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY				
	JP 2003506386	T2	20030218	JP 2001-514904	20000731
	US 6755872	B1	20040629	US 2002-48253	20020521
PRAI DE 1999-19937289	A	19990806			
WO 2000-EP7405	W	20000731			
OS MARPAT 134:183269					
GI					



AB The invention concerns a dyeing agent for keratinous fibers, in particular human hair. Said agent contains at least a combination consisting of aldehydes and heteroarom. ketones of formula (I) wherein: R1 represents a hydrogen atom, a C1-C4 alkyl, aryl or heteroaryl group; R2 represents a C1-C4 alkyl, aryl aralkyl or heteroaryl group; R3, R4, R5 and R6 represent a hydrogen or halogen atom, a C1-C4 alkyl, C1-C4 alkoxy or C1-C4 hydroxyalkoxy group, a hydroxy, nitro, amino group capable of being substituted with C1-C4 alkyl groups, or a C1-C4 acyl group, two of the radicals capable of forming together a condensed aromatic ring, or one of the radicals being capable of forming with R1 or with R2 a pentagonal, hexagonal or heptagonal condensed ring which can also comprise a condensed aromatic ring. X represents a direct bond, a vinylene, phenylene or vinylene-phenylene group optionally substituted; Y represents a sulfur

atom, an oxygen atom, the group CR7R8, wherein R7 and R8 represent a C1-C4 alkyl group, the group NR10, wherein R10 represents a C1-C4 alkyl group, or a vinylene group optionally substituted. Z represents halide, arene sulfate, C1-C4 alkane sulfonate, C1-C4 perfluoroalkane sulfonate, perhalogenate, sulfate, hydrogen sulfate, tetrafluoroborate, hexafluorophosphate or tetrachlorozincate; and consisting of aromatic or heteroarom. nitrosamines of formula (II), wherein: AR represents benzene, naphthalene, pyridine, quinoline, isoquinoline, pyrimidine, indol, benzimidazol, benzothiazol, indazole, benzoxazol, quinoxaline, quinazoline, cinnoline, acenaphthene, fluorene, biphenyl, diphenylamine, stilbene, benzylidene-aminobenzene. R11, R12, R13 and R14 represent a hydrogen atom, a halogen atom, a C1-4 alkyl, C1-4 alkoxy, C1-4 aminoalkyl, C1-4 hydroxyalkoxy, hydroxy, nitro, carboxy, C1-4 alkoxy carbonyl, sulfo, sulfamoyl, arylazo, or amino group, capable of being substituted with C1-4 alkyl or C1-4 hydroxyalkyl groups; and/or consisting of a reaction product of compds. of formula I and II.

IC ICM A61K
 CC 62-3 (Essential Oils and Cosmetics)
 ST hair dye aryl deriv formulation
 IT Surfactants
 (anionic; dyeing agent for keratinous fibers)
 IT Oxidizing agents
 Shampoos
 (dyeing agent for keratinous fibers)
 IT Keratins
 RL: BOC (Biological occurrence); BSU (Biological study, unclassified); RCT (Reactant); BIOL (Biological study); OCCU (Occurrence); RACT (Reactant or reagent)
 (dyeing agent for keratinous fibers)
 IT Hair preparations
 (dyes; dyeing agent for keratinous fibers)
 IT Surfactants
 (nonionic; dyeing agent for keratinous fibers)
 IT Surfactants
 (zwitterionic; dyeing agent for keratinous fibers)
 IT 94158-13-1, HC Red 13
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
 (HC Red 13; dyeing agent for keratinous fibers)
 IT 6358-09-4, Rodol 9R Base
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
 (Rodol 9R Base; dyeing agent for keratinous fibers)
 IT 71-00-1, Histidine, biological studies 98-79-3, Pyrrolidone 5-carboxylic acid 109-00-2, 3-Hydroxypyridine 110-85-0, Piperazidine, biological studies 110-86-1, Pyridine, biological studies 110-89-4, Piperidine, biological studies 123-75-1, Pyrrolidine, biological studies 142-08-5, 2-Hydroxypyridine 147-85-3, Proline, biological studies 288-13-1, Pyrazole 288-32-4, Imidazole, biological studies 498-94-2, Piperidine 4-carboxylic acid 498-95-3, Piperidine 3-carboxylic acid 535-75-1, Piperidine 2-carboxylic acid 616-45-5, Pyrrolidone 616-47-7, 1-Methylimidazol 626-64-2, 4-Hydroxypyridine
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
 (color intensifier; dyeing agent for keratinous fibers)
 IT 610-81-1 2871-01-4 5307-14-2 6285-57-0 56932-44-6 82228-89-5
 117907-43-4 176742-32-8, Basic Brown 17 223398-02-5 223398-08-1

223398-72-9 325964-25-8

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(dyeing agent for keratinous fibers)

IT 84-65-1D, Anthraquinone, derivs. 288-88-0, 1H-1,2,4-Triazole 500-85-6, Indophenol 31905-57-4D, Nitrophenylenediamine, derivs. 43093-74-9D, Nitroaminophenol, derivs.

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(dyeing agent for **keratinous** fibers)IT 7722-84-1, Hydrogen peroxide, biological studies
RL: BUU (Biological use, unclassified); RCT (Reactant); BIOL (Biological study); RACT (Reactant or reagent); USES (Uses)

(oxidizing agent; dyeing agent for keratinous fibers)

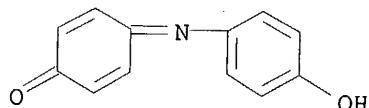
IT 500-85-6, Indophenol

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(dyeing agent for **keratinous** fibers)

RN 500-85-6 HCPLUS

CN 2,5-Cyclohexadien-1-one, 4-[(4-hydroxyphenyl)imino]- (9CI) (CA INDEX NAME)



L84 ANSWER 22 OF 44 HCPLUS COPYRIGHT 2004 ACS on STN

AN 2001:96869 HCPLUS

DN 134:152366

TI Hair dye compositions containing aromatic aldehydes or ketones

IN Moeller, Hinrich; Oberkobusch, Doris; Hoeffkes, Horst

PA Henkel K.-G.a.A., Germany

SO Ger. Offen., 16 pp.

CODEN: GWXXBX

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 19936911	A1	20010208	DE 1999-19936911	19990805
	WO 2001013866	A1	20010301	WO 2000-EP7163	20000802
	W: AU, JP, US				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	EP 1200051	A1	20020502	EP 2000-963997	20000802
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY				
	JP 2003514767	T2	20030422	JP 2001-518006	20000802
	US 6770102	B1	20040803	US 2002-48208	20020503

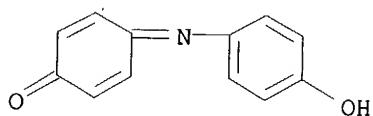
PRAI DE 1999-19936911 A 19990805
WO 2000-EP7163 W 20000802

OS MARPAT 134:152366

AB Hair dyeing compns. contain a combination of aromatic aldehydes and/or ketones with and heterocyclic compds., e.g., quinolinium salts,

benzothiazolium salts, and color strengthening agents such as piperidine, pyrrolidine, and pyrazole. Thus, a mixture of 4-dimethylaminobenzaldehyde and 1-ethyl-2-methylquinolinium iodide containing piperidine at a pH of 9.0 gave a violet-red color to the hair.

IC ICM A61K007-13
 CC 62-3 (Essential Oils and Cosmetics)
 ST hair dye arom aldehyde ketone; ethylmethylquinolinium iodide dimethylaminobenzaldehyde piperidine hair dye; quinolinium iodide benzaldehyde piperidine hair dye
 IT Aldehydes, biological studies
 Ketones, biological studies
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
 (aromatic; hair dye compns. containing aromatic aldehydes or ketones)
 IT Hair preparations
 (dyes; hair dye compns. containing aromatic aldehydes or ketones)
 IT 59-48-3 67-52-7, Barbituric acid 71-00-1, Histidine, biological studies 84-65-1D, Anthraquinone, derivs. 84-83-3 100-10-7
 109-00-2, 3-Pyridinol 110-85-0, Piperazidine, biological studies
 110-86-1, Pyridine, biological studies 110-89-4, Piperidine, biological studies 117-92-0 120-21-8 123-75-1, Pyrrolidine, biological studies
 141-84-4 142-08-5, 2(1H)-Pyridinone 147-85-3, Proline, biological studies 149-87-1 288-13-1, Pyrazole 288-32-4, Imidazole, biological studies 288-88-0, 1H-1,2,4-Triazole 487-89-8, 1H-Indole-3-carboxaldehyde 498-94-2, 4-Piperidinocarboxylic acid 498-95-3, 3-Piperidinocarboxylic acid 500-85-6D, Indophenol, derivs.
 504-17-6, ThioBarbituric acid 535-75-1, 2-Piperidinocarboxylic acid 579-72-6 606-23-5, 1H-Indene-1,3(2H)-dione 606-55-3 616-45-5, Pyrrolidone 616-47-7 626-64-2, 4-Pyridinol 1199-59-3 1204-86-0
 1424-66-4 1971-81-9 2124-31-4 2156-29-8 3158-63-2 3785-01-1
 3785-05-5 3859-41-4, 1,3-Cyclopentanedione 3915-61-5 4181-05-9
 5217-47-0 5718-83-2, Rhodanine 3-acetic acid 6203-18-5 6285-94-5
 7169-34-8, Coumaranone 7570-45-8 10040-98-9 10338-57-5 14933-76-7
 18241-33-3D, salts 18241-35-5D, salts 18241-36-6D, salts
 18241-37-7D, salts 18241-44-6D, salts 19012-03-4 20327-08-6
 23302-83-2 24235-06-1 28141-13-1 31905-57-4, Nitrophenylenediamine
 33985-71-6 40265-71-2D, salts 41602-56-6 41927-50-8 42846-14-0D,
 salts 42846-15-1D, salts 42846-19-5D, salts 42846-38-8D, salts
 42922-08-7D, salts 42952-29-4 43093-74-9, Nitroaminophenol
 46149-03-5D, salts 46297-20-5D, salts 50571-73-8D, salts
 50579-67-4D, salts 50580-50-2D, salts 51980-54-2 56405-37-9
 58028-76-5 60126-37-6D, salts 63149-01-9 63149-33-7 84562-48-1
 90134-10-4 96196-21-3 97807-64-2 194099-39-3 323575-81-1
 323575-82-2 323575-83-3 323575-84-4 323575-89-9D, halide and sulfonate salts
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
 (hair dye compns. containing aromatic aldehydes or ketones)
 IT 500-85-6D, Indophenol, derivs.
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
 (hair dye compns. containing aromatic aldehydes or ketones)
 RN 500-85-6 HCAPLUS
 CN 2,5-Cyclohexadien-1-one, 4-[(4-hydroxyphenyl)imino]- (9CI) (CA INDEX NAME)



L84 ANSWER 23 OF 44 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 2000:880595 HCAPLUS

DN 134:46626

TI Hair dye compositions containing xanthenes

IN Moeller, Hinrich; Meinigke, Bernd

PA Henkel K.-G.a.A., Germany

SO Ger. Offen., 14 pp.

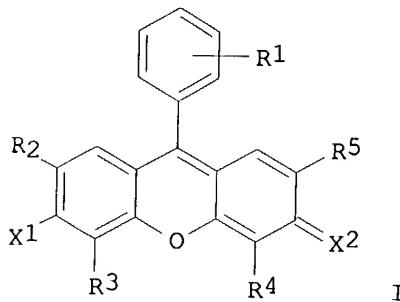
CODEN: GWXXBX

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 19926377 WO 2000076466	A1 A1	20001214 20001221	DE 1999-19926377 WO 2000-EP5044	19990610 20000602
	W: AU, BR, CA, CN, CZ, HU, JP, NO, PL, RU, SK, US, VN RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
PRAI	DE 1999-19926377	A	19990610		
OS	MARPAT 134:46626				
GI					



AB A hair dye composition comprises a xanthene derivative (I, R1 = e.g., H, C1-4 carboxyl or a sulfone; R2, R3, R4, and R5 = H, C1-4 alkyl, C1-4 alkoxy or OH; when X2 = O, then X1 = OH). Addnl. the compns. contains compds. with amino, aminocarboxylate or amino hydroxy groups, N heterocycles, etc. A formulation containing pyrogallol red, 2,5-diaminotoluene sulfate (1:1) and a surfactant dyed the hair fibers medium brown.

IC ICM C09B011-28

ICS A61K007-13

CC 62-3 (Essential Oils and Cosmetics)

Section cross-reference(s): 41

ST xanthene hair dye oxidative; amino phenol xanthene hair dye

IT Phenols, biological studies

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(amino; hair dye compns. containing xanthenes)
IT Surfactants
(anionic; hair dye compns. containing xanthenes)
IT Nitriles, biological studies
Nitro compounds
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
(Uses)
(aromatic; hair dye compns. containing xanthenes)
IT Hair preparations
(dyes, oxidative; hair dye compns. containing xanthenes)
IT Hair preparations
(dyes; hair dye compns. containing xanthenes)
IT Amino acids, biological studies
Phenols, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
(Uses)
(hair dye compns. containing xanthenes)
IT Aromatic compounds
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
(Uses)
(nitro; hair dye compns. containing xanthenes)
IT Surfactants
(nonionic; hair dye compns. containing xanthenes)
IT Peptides, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
(Uses)
(oligopeptides; hair dye compns. containing xanthenes)
IT Amines, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
(Uses)
(phenolic; hair dye compns. containing xanthenes)
IT Amines, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
(Uses)
(primary; hair dye compns. containing xanthenes)
IT Amines, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
(Uses)
(secondary; hair dye compns. containing xanthenes)
IT Surfactants
(zwitterionic; hair dye compns. containing xanthenes)
IT 59-48-3 62-53-3, Benzenamine, biological studies 62-53-3D, Aniline,
derivs. 65-49-6 67-52-7, 2,4,6(1H,3H,5H)-Pyrimidinetrione 81-11-8
81-88-9, Rhodamine B 83-30-7 83-56-7, 1,5-Naphthalenediol 84-65-1D,
Anthraquinone, derivs. 87-02-5 87-66-1, 1,2,3-Benzenetriol 88-21-1
89-57-6 89-86-1 90-05-1 90-15-3, 1-Naphthalenol 90-20-0 92-44-4,
2,3-Naphthalenediol 92-65-9 92-83-1D, Xanthene, derivs. 95-54-5,
1,2-Benzenediamine, biological studies 95-55-6 95-70-5 95-88-5
98-37-3 98-86-2, biological studies 99-05-8 99-07-0 99-31-0
99-50-3 100-01-6, biological studies 101-77-9 101-80-4 102-32-9
106-50-3, 1,4-Benzenediamine, biological studies 108-45-2,
1,3-Benzenediamine, biological studies 108-46-3, 1,3-Benzenediol,
biological studies 108-72-5, 1,3,5-Benzenetriamine 108-73-6,
1,3,5-Benzenetriol 116-63-2 118-12-7 118-70-7, 4,5,6-
Pyrimidinetrione 118-92-3 119-59-5 119-70-0 120-80-9,
1,2-Benzenediol, biological studies 121-47-1 121-57-3 123-30-8
123-31-9, 1,4-Benzenediol, biological studies 139-65-1 141-84-4
141-86-6, 2,6-Pyridinediamine 149-91-7, biological studies 150-13-0
150-19-6 150-75-4 150-76-5 156-81-0, 2,4-Pyrimidinediamine

288-88-0, 1H-1,2,4-Triazole 452-58-4, 2,3-Pyridinediamine 462-08-8,
 3-Pyridinamine 488-87-9 496-73-1 **500-85-6D**, Indophenol,
 derivs. 504-15-4 504-17-6 504-24-5, 4-Pyridinamine 504-29-0,
 2-Pyridinamine 517-22-6 533-31-3, 1,3-Benzodioxol-5-ol 533-73-3,
 1,2,4-Benzenetriol 535-87-5 537-65-5 553-86-6, 2(3H)-Benzofuranone
 578-66-5, 8-Quinolinamine 580-17-6, 3-Quinolinamine 580-22-3,
 2-Quinolinamine 582-17-2, 2,7-Naphthalenediol 591-27-5 603-81-6
 606-55-3 608-08-2 608-25-3 610-74-2 611-03-0 611-98-3 614-82-4
 615-50-9 615-66-7 615-71-4, 1,2,4-Benzenetriamine 619-05-6
 623-09-6 636-25-9 876-87-9 934-22-5, 1H-Benzimidazol-5-amine
 975-17-7 989-38-8, Rhodamine 6G 1004-74-6, Pyrimidinetetramine
 1004-75-7 1123-55-3, 7-Benzothiazolamine 1123-93-9,
 5-Benzothiazolamine 1125-60-6, 5-Isoquinolinamine 1197-55-3
 1571-72-8 1820-80-0, 1H-Pyrazol-3-amine 1953-54-4, 1H-Indol-5-ol
 2321-07-5, Fluorescein 2374-03-0 2380-84-9, 1H-Indol-7-ol 2380-86-1,
 1H-Indol-6-ol 2380-94-1, 1H-Indol-4-ol 2654-52-6 2785-06-0
 2835-95-2 2835-99-6 2871-01-4 3131-52-0, 1H-Indole-5,6-diol
 3158-63-2 3167-49-5 3342-78-7 3855-78-5 4318-76-7,
 2,5-Pyridinediamine 4331-29-7, 1H-Benzimidazol-4-amine 4506-66-5
 4928-43-2 5007-67-0 5131-58-8 5192-03-0, 1H-Indol-5-amine
 5192-04-1, 1H-Indol-7-amine 5192-23-4, 1H-Indol-4-amine 5217-47-0
 5318-27-4, 1H-Indol-6-amine 5345-47-1 5392-28-9 5418-63-3
 5434-20-8 5718-83-2 5959-52-4 6201-65-6 6259-50-3 6358-09-4
 6399-72-0 6492-79-1 6628-04-2 6967-12-0, 1H-Indazol-6-amine
 7336-20-1 7411-49-6 7575-35-1 7749-47-5 7768-28-7 13558-31-1,
 Rhodamine 110 13754-19-3, 4,5-Pyrimidinediamine 14268-66-7,
 1,3-Benzodioxol-5-amine 14338-36-4 16082-33-0, 1H-Pyrazole-3,5-diamine
 16859-86-2 16867-03-1 19335-11-6, 1H-Indazol-5-amine 20103-09-7
 22715-34-0 23244-87-3, 2,4,5-Pyridinetriamine 23894-07-7 24119-24-2
 25265-76-3D, Phenylenediamine, derivs. or analogs 28020-38-4
 29539-03-5 29705-39-3 31905-57-4D, NitroPhenylenediamine, derivs.
 32638-88-3, Pyrogallol red 41927-50-8 41946-53-6 50610-28-1
 53666-79-8 54381-16-7 55302-96-0 56216-28-5 61224-35-9
 61693-42-3 62496-02-0 62669-77-6, Rhodamine 116 perchlorate
 64339-18-0, Rhodamine 101 66566-48-1 66635-40-3 70643-19-5
 74918-21-1 79352-72-0 82190-32-7 83732-72-3 83763-47-7
 84540-47-6 84540-50-1 85679-78-3 85926-99-4 90817-34-8
 93841-24-8 93841-25-9 104333-09-7 110102-86-8 114402-54-9
 115423-86-4 117907-43-4 126335-41-9 128729-30-6 130582-56-8
 137290-86-9 144644-13-3 159661-42-4 202525-71-1 202525-73-3
 202525-74-4 202525-75-5 202525-76-6 202525-77-7 202525-78-8
 202525-79-9 215377-52-9 220118-56-9 312958-14-8

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
 (Uses)

(hair dye compns. containing xanthenes)

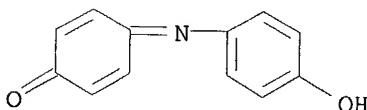
IT **500-85-6D**, Indophenol, derivs.

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
 (Uses)

(hair dye compns. containing xanthenes)

RN 500-85-6 HCPLUS

CN 2,5-Cyclohexadien-1-one, 4-[(4-hydroxyphenyl)imino]- (9CI) (CA INDEX
 NAME)



L84 ANSWER 24 OF 44 HCAPLUS COPYRIGHT 2004 ACS on STN
 AN 2000:227963 HCAPLUS
 DN 132:255752
 TI Use of ninhydrin derivatives for coloring keratin-containing fibers
 IN Moeller, Hinrich; Hoeffkes, Horst; Oberkobusch, Doris
 PA Henkel K.-G.a.A., Germany
 SO Ger. Offen., 14 pp.

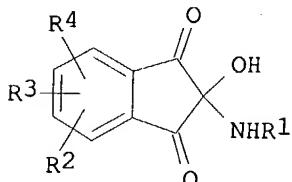
CODEN: GWXXBX

DT Patent

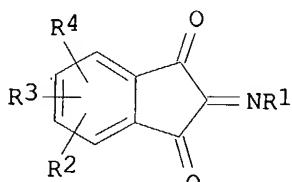
LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 19845481	A1	20000406	DE 1998-19845481	19981002
PRAI	DE 1998-19845481		19981002		
OS	MARPAT 132:255752				
GI					



I



II

AB Ninhydrin derivs. I and II [R1 = (substituted) Ph or naphthyl, (condensed) heterocyclyl, (thio)carbamoyl, ureido, C1-6 carboxyalkyl, guanidino; R2-R4 = H, halo, C1-4 alkyl, C1-4 alkoxy, (substituted) amino; 2 of R2-R4 may complete a condensed benzene ring] are direct hair dyes which are equivalent to oxidative dyes in terms of depth of color, masking of gray hair, and fastness with little or no staining or sensitization of the skin. They may be used in combination with oxidizing agents and oxidative dye precursors to produce hair colors with extraordinary brilliance and depth and with many color nuances. Thus, a suspension of 10 mmol 2-hydroxy-2-phenylamino-1,3-indandione, 10 mmol NaOAc, and 1 drop 20% fatty alkyl ether sulfate solution in 100 mL H2O was heated briefly to 80°, cooled, filtered, adjusted to pH 6, and applied to gray hair for 30 min at 30° to produce a violet-blue color; the same composition with N,N-bis(2-hydroxyethyl)-p-phenylenediamine-HCl added before heating produced an intense violet-brown color.

ICM A61K007-13

ICS D06P003-04

CC 62-3. (Essential Oils and Cosmetics)

ST ninhydrin deriv hair dye

IT Hair preparations

(dyes; ninhydrin derivs. for coloring keratin-containing fibers)

IT	485-47-2D, Ninhydrin, derivs.	17438-16-3	17438-17-4	17438-18-5
	17438-19-6	17438-20-9	57732-10-2	58137-73-8
	60016-98-0	60130-82-7	262613-51-4	262613-53-6
	262613-60-5	262613-63-8	262613-65-0	262613-67-2
	262613-72-9	262613-74-1	262613-76-3	262613-78-5
				262613-80-9

262613-82-1 262613-86-5

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(ninhydrin derivs. for coloring keratin-containing fibers)

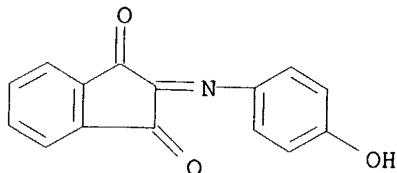
IT 17438-20-9

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(ninhydrin derivs. for coloring keratin-containing fibers)

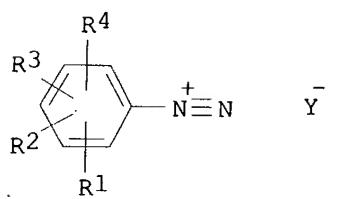
RN 17438-20-9 HCAPLUS

CN 1H-Indene-1,3(2H)-dione, 2-[(4-hydroxyphenyl)imino]- (9CI) (CA INDEX NAME)



L84 ANSWER 25 OF 44 HCAPLUS COPYRIGHT 2004 ACS on STN
 AN 2000:172971 HCAPLUS
 DN 132:227153
 TI Procedure for coloring keratin-containing fibers using stable diazonium salts
 IN Moeller, Hinrich; Hoeffkes, Horst
 PA Henkel K.-G.a.A., Germany
 SO Ger. Offen., 12 pp.
 CODEN: GWXXBX
 DT Patent
 LA German
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 19842071 WO 2000015184	A1 A1	20000316 20000323	DE 1998-19842071 WO 1999-EP6526	19980915 19990904
	W: AU, JP, US RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	AU 9959733 EP 1113779	A1 A1	20000403 20010711	AU 1999-59733 EP 1999-969020	19990904 19990904
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
PRAI	JP 2002524484	T2	20020806	JP 2000-569769	19990904
	DE 1998-19842071 WO 1999-EP6526	A W	19980915 19990904		
OS	MARPAT 132:227153				
GI					



AB Stable diazonium salts I [R1-R4 = H, Cl-4 alkyl, Cl-4 alkoxy, hydroxy-Cl-4-alkoxy, OH, SO₃H, CO₂H. (substituted) amino, Cl-4 acyl; 2 of R1-R4 may together form a condensed benzene or N-heterocyclic ring; Y = anion], optionally combined with primary or secondary amines, N-heterocyclic compds., aromatic hydroxy compds., and/or active CH compds., are direct 1-step hair dyes which provide an exceptional brilliance and depth of color at least comparable with those obtainable with oxidative dyes. They may be used in the presence or absence of oxidizing agents. Thus, a slurry of 10 mmol 2,5-dimethoxy-4-benzoylaminophenyl diazonium chloride, 10 mmol 2,5-diaminotoluene sulfate, 10 mmol NaOAc, and 1 drop 20% fatty alkyl ether sulfate solution in 100 mL H₂O was heated briefly to 80°, cooled, filtered, adjusted to pH 6.0, and the solution was applied to gray hair at 30° for 30 min to impart a medium-brown color.

IC ICM A61K007-13
ICS D06P003-04; D06P003-14

CC 62-3 (Essential Oils and Cosmetics)
Section cross-reference(s): 41

ST diazonium salt hair dye; benzenediazonium salt hair dye

IT Nitriles, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(aromatic; procedure for coloring keratin-containing fibers using stable diazonium salts)

IT Hair preparations
(dyes; procedure for coloring keratin-containing fibers using stable diazonium salts)

IT Heterocyclic compounds
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(nitrogen; procedure for coloring keratin-containing fibers using stable diazonium salts)

IT Amines, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(primary; procedure for coloring keratin-containing fibers using stable diazonium salts)

IT Hydroxy compounds
Phenols, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(procedure for coloring keratin-containing fibers using stable diazonium salts)

IT Amines, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(secondary; procedure for coloring keratin-containing fibers using stable diazonium salts)

IT 615-50-9

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
 (dprocedure for coloring keratin-containing fibers using stable diazonium salts)

IT 51-81-0, 3-Aminophenol hydrochloride 59-48-3, Oxindole 62-53-3D, Aniline, derivs. 65-49-6, 4-Aminosalicylic acid 67-52-7, Barbituric acid 83-30-7, 2,4,6-Trihydroxybenzoic acid 83-56-7, 1,5-Dihydroxynaphthalene 84-65-1D, Anthraquinone, derivs. 87-02-5, 7-Amino-4-hydroxynaphthalene-2-sulfonic acid 87-66-1, Pyrogallol 88-21-1, 2-Aminobenzenesulfonic acid 89-57-6, 5-Aminosalicylic acid 89-86-1, 2,4-Dihydroxybenzoic acid 90-05-1, 2-Methoxyphenol 90-15-3, 1-Naphthol 90-20-0, 4-Amino-5-hydroxynaphthalene-2,7-disulfonic acid 92-44-4, 2,3-Dihydroxynaphthalene 95-54-5, o-Phenylenediamine, biological studies 95-55-6, 2-Aminophenol 95-70-5, 2,5-Diaminotoluene 95-88-5, 4-Chlororesorcinol 98-37-3, 3-Amino-4-hydroxybenzenesulfonic acid 99-05-8, 3-Aminobenzoic acid 99-07-0, 3-Dimethylaminophenol 99-31-0, 5-Aminoisophthalic acid 99-50-3, 3,4-Dihydroxybenzoic acid 100-01-6, 4-Nitroaniline, biological studies 101-69-9 101-77-9, 4,4'-Diaminodiphenylmethane 101-80-4, 4,4'-Diaminodiphenyl ether 102-32-9, 3,4-Dihydroxyphenylacetic acid 106-50-3, p-Phenylenediamine, biological studies 108-45-2, m-Phenylenediamine, biological studies 108-46-3, Resorcinol, biological studies 108-72-5, 1,3,5-Triaminobenzene 108-73-6, Phloroglucinol 118-70-7, 4,5,6-Triaminopyrimidine 118-92-3, 2-Aminobenzoic acid 119-59-5, 4,4'-Diaminodiphenyl sulfoxide 119-70-0, 4,4'-Diaminodiphenylamine-2-sulfonic acid 120-72-9D, Indole, derivs. 120-80-9, Pyrocatechol, biological studies 121-47-1, 3-Aminobenzenesulfonic acid 121-57-3, 4-Aminobenzenesulfonic acid 123-30-8, 4-Aminophenol 123-31-9, Hydroquinone, biological studies 139-65-1, 4,4'-Diaminodiphenyl sulfide 141-84-4, Rhodanine 141-86-6, 2,6-Diaminopyridine 149-91-7, Gallic acid, biological studies 150-13-0, 4-Aminobenzoic acid 150-19-6, 3-Methoxyphenol 150-75-4, 4-Methylaminophenol 150-76-5, 4-Methoxyphenol 156-81-0, 2,4-Diaminopyrimidine 452-58-4, 2,3-Diaminopyridine 462-08-8, 3-Aminopyridine 480-66-0 488-87-9, 2,5-Dimethylresorcinol 496-15-1D, Indoline, derivs. 496-73-1, 4-Methylresorcinol 500-85-6D, Indophenol, derivs. 504-15-4, 5-Methylresorcinol 504-17-6, Thiobarbituric acid 504-24-5, 4-Aminopyridine 504-29-0, 2-Aminopyridine 517-22-6, 2,4-Dimethyl-3-ethylpyrrole 533-31-3, 3,4-Methylenedioxyphephenol 533-73-3, Hydroxyhydroquinone 535-87-5, 3,5-Diaminobenzoic acid 537-65-5, 4,4'-Diaminodiphenylamine 575-38-2, 1,7-Dihydroxynaphthalene 575-44-0, 1,6-Dihydroxynaphthalene 578-66-5, 8-Aminoquinoline 580-17-6, 3-Aminoquinoline 580-22-3, 2-Aminoquinoline 581-43-1, 2,6-Dihydroxynaphthalene 582-17-2, 2,7-Dihydroxynaphthalene 591-27-5, 3-Aminophenol 603-81-6, 2,3-Diaminobenzoic acid 606-55-3 608-25-3, 2-Methylresorcinol 609-20-1, 2,6-Dichloro-p-phenylenediamine 610-74-2, 2,5-Diaminobenzoic acid 611-03-0, 2,4-Diaminobenzoic acid 611-98-3, 4,4'-Diaminobenzophenone 615-66-7, 2-Chloro-p-phenylenediamine 615-71-4, 1,2,4-Triaminobenzene 619-05-6, 3,4-Diaminobenzoic acid 623-09-6, 4-Methylaminoaniline 636-25-9, 2,5-Diaminophenol 876-87-9 887-77-4 934-22-5, 5-Aminobenzimidazole 1004-74-6, 2,4,5,6-Tetraaminopyrimidine 1004-75-7, 4-Hydroxy-2,5,6-triaminopyrimidine 1123-55-3, 7-Aminobenzothiazole 1125-60-6, 5-Aminoisoquinoline 1197-55-3, 4-Aminophenylacetic acid 1455-77-2, 3,5-Diamino-1,2,4-triazole 1571-72-8, 3-Amino-4-hydroxybenzoic acid 1820-80-0, 3-Aminopyrazole 1953-54-4, 5-Hydroxyindole 2374-03-0, 4-Amino-3-hydroxybenzoic acid 2380-84-9, 7-Hydroxyindole 2380-86-1, 6-Hydroxyindole 2380-94-1, 4-Hydroxyindole 2654-52-6, 2,3-Dimethylbenzothiazolium p-toluenesulfonate 2785-06-0,

2,3-Dimethylbenzothiazolium iodide 2835-95-2, 2-Methyl-5-aminophenol
 2835-99-6, 3-Methyl-4-aminophenol 2871-01-4, 2-Nitro-4-amino-1-(2-hydroxyethylamino)benzene 3131-52-0, 5,6-Dihydroxyindole 3158-63-2,
 1,3-Dimethylthiobarbituric acid 3167-49-5, 6-Aminonicotinic acid 3342-78-7, 2-Aminophenylacetic acid 3855-78-5, 2,3,4-Trimethylpyrrole
 4318-76-7, 2,5-Diaminopyridine 4331-29-7, 7-Aminobenzimidazole
 4506-66-5, 1,2,4,5-Tetraaminobenzene tetrahydrochloride 4928-43-2,
 2-Dimethylamino-5-aminopyridine 5007-67-0, 3,3',4,4'-Tetraaminobenzophenone 5131-58-8 5192-03-0, 5-Aminoindole 5192-04-1,
 7-Aminoindole 5192-23-4, 4-Aminoindole 5217-47-0, 1,3-Diethylthiobarbituric acid 5318-27-4, 6-Aminoindole 5345-47-1,
 2-Aminonicotinic acid 5418-63-3 5434-20-8, 3-Aminophthalic acid 5718-83-2, Rhodanine-3-acetic acid 5959-52-4, 3-Amino-2-naphthoic acid
 6201-65-6, 2-Chlororesorcinol 6259-50-3, 6-Dimethylamino-4-hydroxy-2-naphthalenesulfonic acid 6358-09-4 6399-72-0, 6-Amino-7-hydroxynaphthalene-2-sulfonic acid 6628-04-2, 4-Aminoquinaldine
 6967-12-0, 6-Aminoindazole 7169-34-8, Coumaranone 7336-20-1
 7411-49-6, 3,3',4,4'-Tetraaminobiphenyl tetrahydrochloride 7575-35-1,
 N,N-Bis(2-hydroxyethyl)-p-phenylenediamine 7749-47-5,
 2-Amino-4-methoxy-6-methylpyrimidine 7768-28-7, 2-(2-Hydroxyethyl)phenol
 13754-19-3, 4,5-Diaminopyrimidine 14263-89-9 14268-66-7,
 3,4-Methylenedioxyaniline 14338-36-4, 3-Aminophenylacetic acid
 14726-28-4 15883-57-5, 2-Naphthol-3,6-disulfonic acid sodium salt
 16082-33-0, 3,5-Diaminopyrazole 16867-03-1, 2-Amino-3-hydroxypyridine
 17227-95-1 19335-11-6, 5-Aminoindazole 20103-09-7,
 2,5-Dichloro-p-phenylenediamine 20546-03-6 22715-34-0,
 2-Hydroxy-4,5,6-triaminopyrimidine 23244-87-3, 2,4,5-Triaminopyridine
 23894-07-7, 3,6-Dihydroxy-2,7-naphthalenesulfonic acid 24119-24-2,
 N,N-Bis[2-(4-aminophenoxy)ethyl]methylamine trihydrochloride 28020-38-4,
 2,3-Diamino-6-methoxypyridine 28491-52-3 29539-03-5,
 5,6-Dihydroxyindoline 29705-39-3 41927-50-8 49647-58-7,
 2,4,5,6-Tetraaminopyrimidine sulfate 50610-28-1 51775-08-7
 53760-27-3, 4,4'-Diaminodiphenylamine sulfate 54381-16-7 55302-96-0,
 2-Methyl-5-(2-hydroxyethylamino)phenol 56216-28-5, 3,5-Diamino-2,6-dimethoxypyridine dihydrochloride 61693-42-3, 3-Amino-2,4-dichlorophenol
 61925-55-1 62496-02-0, 2-Methylamino-4,5,6-triaminopyrimidine
 64071-86-9 66422-95-5, 2,4-Diaminophenoxyethanol dihydrochloride
 66635-40-3, 4,4'-Diaminostilbene dihydrochloride 70643-19-5,
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 tetrahydrochloride 79352-72-0, 4-Amino-2-aminomethylphenol 83732-72-3,
 2-Methylamino-3-amino-6-methoxypyridine dihydrochloride 83763-47-7,
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 85252-22-8 85679-78-3, 3,5-Diamino-2,6-dimethoxypyridine 85926-99-4,
 4-Hydroxyindoline 90817-34-8, 3-Amino-2-methylamino-6-methoxypyridine
 93841-24-8, 2-(2,5-Diaminophenyl)ethanol 93841-25-9 104333-09-7
 110102-86-8, 2-Methyl-5-amino-4-chlorophenol 114402-54-9,
 1,3-Bis(4-aminophenylamino)propane 115423-86-4, 1,3-Diamino-2,4-dimethoxybenzene 117907-43-4, 4-Amino-2-nitrodiphenylamine-2'-carboxylic acid
 126335-41-9, 2,5-Diaminophenetole 128729-30-6 130582-56-8,
 1,3-Bis(4-aminophenylamino)-2-propanol 135043-64-0, 2-Aminomethyl-4-aminophenol dihydrochloride 137290-86-9, 5-(2-Hydroxyethylamino)-4-methoxy-2-methylphenol 144644-13-3 159661-42-4 177080-42-1,
 2-Amino-4-(2-hydroxyethylamino)phenol 202525-71-1 202525-73-3,
 2,4,5-Triaminophenol trihydrochloride 202525-76-6, 2,4,6-Triaminoresorcinol trihydrochloride 202525-77-7 202525-78-8,
 4,6-Diaminopyrogallol dihydrochloride 202525-79-9 215377-52-9,
 3,4-Methylenediaminoaniline 223383-77-5, 4-Amino-3-hydroxynaphthalenesulfonic acid 260981-01-9 260981-02-0,

N-(2-Methoxyethyl)-p-phenylenediamine 260981-03-1, 2,3-Dichloro-p-phenylenediamine 261156-43-8
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(procedure for coloring **keratin**-containing fibers using stable diazonium salts)

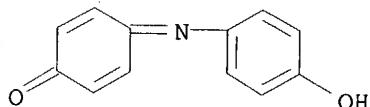
IT 500-85-6D, Indophenol, derivs.

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(procedure for coloring **keratin**-containing fibers using stable diazonium salts)

RN 500-85-6 HCPLUS

CN 2,5-Cyclohexadien-1-one, 4-[(4-hydroxyphenyl)imino]- (9CI) (CA INDEX NAME)



L84 ANSWER 26 OF 44 HCPLUS COPYRIGHT 2004 ACS on STN
 AN 2000:172970 HCPLUS

DN 132:227152

TI Agent for coloring keratin-containing fibers

IN Moeller, Hinrich; Hoeffkes, Horst

PA Henkel K.-G.a.A., Germany

SO Ger. Offen., 12 pp.

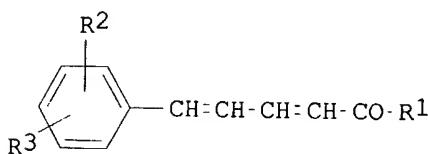
CODEN: GWXXBX

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 19842070	A1	20000316	DE 1998-19842070	19980915
	WO 2000015183	A1	20000323	WO 1999-EP6525	19990904
	W: AU, JP, US				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	AU 9957454	A1	20000403	AU 1999-57454	19990904
	EP 1112055	A1	20010704	EP 1999-944605	19990904
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
	JP 2002524483	T2	20020806	JP 2000-569768	19990904
PRAI	DE 1998-19842070	A	19980915		
	WO 1999-EP6525	W	19990904		
OS	MARPAT 132:227152				
GI					



I

AB 5-Arylpenta-2,4-dienylcarbonyl compds. [I; R1 = H, C1-4 alkyl; R2, R3 = H, halo, C1-4 alkyl, C1-4 alkoxy, hydroxy-C1-4-alkoxy, OH, NO₂, (substituted) amino, C1-4 acyl, heterocycll; or 2 of the residues may together form a condensed benzene ring] are direct hair dyes which provide an exceptional brilliance and depth of color and permit many color nuances. They may be used in the presence of oxidizing agents. Thus, a slurry of 10 mmol 5-[4-(N,N-dimethylamino)phenyl]penta-2,4-dien-1-al, 10 mmol NaOAc, and 1 drop 20% fatty alkyl ether sulfate solution in 100 mL H₂O was heated briefly to 80°, cooled, filtered, the pH was adjusted, and the solution was applied to gray hair at 30° for 30 min. The hair took on an orange-brown color at pH 6.0 and a brownish-rose color at pH 2.0.

IC ICM A61K007-13

ICS C07C223-06; C07C225-16

CC 62-3 (Essential Oils and Cosmetics)

ST arylpentadienylcarbonyl hair dye; pentadienylcarbonyl compd aryl hair dye

IT Amino acids, biological studies

Hydroxy compounds

Peptides, biological studies

Phenols, biological studies

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(agent for coloring keratin-containing fibers)

IT Nitriles, biological studies

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(aromatic; agent for coloring keratin-containing fibers)

IT Hair preparations

(dyes; agent for coloring keratin-containing fibers)

IT Heterocyclic compounds

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(nitrogen; agent for coloring keratin-containing fibers)

IT Amines, biological studies

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(primary; agent for coloring keratin-containing fibers)

IT Amines, biological studies

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(secondary; agent for coloring keratin-containing fibers)

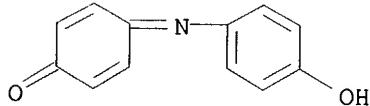
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studies 108-72-5, 1,3,5-Triaminobenzene 108-73-6, Phloroglucinol
 118-70-7, 4,5,6-Triaminopyrimidine 118-92-3, 2-Aminobenzoic acid
 119-59-5, 4,4'-Diaminodiphenyl sulfoxide 119-70-0, 4,4'-
 Diaminodiphenylamine-2-sulfonic acid 120-72-9D, Indole, derivs.
 120-80-9, Pyrocatechol, biological studies 121-47-1,
 3-Aminobenzenesulfonic acid 121-57-3, 4-Aminobenzenesulfonic acid
 123-30-8, 4-Aminophenol 123-31-9, Hydroquinone, biological studies
 139-65-1, 4,4'-Diaminodiphenyl sulfide 141-84-4, Rhodanine 141-86-6,
 2,6-Diaminopyridine 149-91-7, Gallic acid, biological studies
 150-13-0, 4-Aminobenzoic acid 150-19-6, 3-Methoxyphenol 150-75-4,
 4-Methylaminophenol 150-76-5, 4-Methoxyphenol 156-81-0,
 2,4-Diaminopyrimidine 452-58-4, 2,3-Diaminopyridine 462-08-8,
 3-Aminopyridine 480-66-0 488-87-9, 2,5-Dimethylresorcinol 496-15-1D,
 Indoline, derivs. 496-73-1, 4-Methylresorcinol 500-85-6D,
 Indophenol, derivs. 504-15-4, 5-Methylresorcinol 504-17-6,
 Thiobarbituric acid 504-24-5, 4-Aminopyridine 504-29-0,
 2-Aminopyridine 517-22-6, 2,4-Dimethyl-3-ethylpyrrole 533-31-3,
 3,4-Methylenedioxyphenol 533-73-3, Hydroxyhydroquinone 535-87-5,
 3,5-Diaminobenzoic acid 537-65-5, 4,4'-Diaminodiphenylamine 578-66-5,
 8-Aminoquinoline 580-17-6, 3-Aminoquinoline 580-22-3, 2-Aminoquinoline
 582-17-2, 2,7-Dihydroxynaphthalene 591-27-5, 3-Aminophenol 603-81-6,
 2,3-Diaminobenzoic acid 606-55-3, 1-Ethylquinaldinium iodide 608-25-3,
 2-Methylresorcinol 609-20-1, 2,6-Dichloro-p-phenylenediamine 610-74-2,
 2,5-Diaminobenzoic acid 611-03-0, 2,4-Diaminobenzoic acid 611-98-3,
 4,4'-Diaminobenzophenone 615-50-9 615-66-7, 2-Chloro-p-
 phenylenediamine 615-71-4, 1,2,4-Triaminobenzene 619-05-6,
 3,4-Diaminobenzoic acid 623-09-6, 4-Methylaminoaniline 636-25-9,
 2,5-Diaminophenol 876-87-9, 1-Methylquinaldinium iodide 934-22-5,
 5-Aminobenzimidazole 1004-74-6, 2,4,5,6-Tetraaminopyrimidine
 1004-75-7, 4-Hydroxy-2,5,6-triaminopyrimidine 1123-55-3,
 7-Aminobenzothiazole 1125-60-6, 5-Aminoisoquinoline 1197-55-3,
 4-Aminophenylacetic acid 1455-77-2, 3,5-Diamino-1,2,4-triazole
 1571-72-8, 3-Amino-4-hydroxybenzoic acid 1820-80-0, 3-Aminopyrazole
 1953-54-4, 5-Hydroxyindole 2374-03-0, 4-Amino-3-hydroxybenzoic acid
 2380-84-9, 7-Hydroxyindole 2380-86-1, 6-Hydroxyindole 2380-94-1,
 4-Hydroxyindole 2654-52-6, 2,3-Dimethylbenzothiazolium
 p-toluenesulfonate 2785-06-0, 2,3-Dimethylbenzothiazolium iodide
 2835-95-2, 2-Methyl-5-aminophenol 2835-99-6, 3-Methyl-4-aminophenol
 2871-01-4 3131-52-0, 5,6-Dihydroxyindole 3158-63-2,
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 3342-78-7, 2-Aminophenylacetic acid 3855-78-5, 2,3,4-Trimethylpyrrole
 4318-76-7, 2,5-Diaminopyridine 4331-29-7, 7-Aminobenzimidazole
 4506-66-5, 1,2,4,5-Tetraaminobenzene tetrahydrochloride 4928-43-2,
 2-Dimethylamino-5-aminopyridine 5007-67-0, 3,3',4,4'-
 Tetraaminobenzophenone 5131-58-8 5192-03-0, 5-Aminoindole 5192-04-1,
 7-Aminoindole 5192-23-4, 4-Aminoindole 5217-47-0, 1,3-
 Diethylthiobarbituric acid 5318-27-4, 6-Aminoindole 5345-47-1,
 2-Aminonicotinic acid 5418-63-3 5434-20-8, 3-Aminophthalic acid
 5718-83-2, Rhodanine-3-acetic acid 5959-52-4, 3-Amino-2-naphthoic acid
 6201-65-6, 2-Chlororesorcinol 6259-50-3, 6-Dimethylamino-4-hydroxy-2-
 naphthalenesulfonic acid 6358-09-4 6399-72-0, 6-Amino-7-
 hydroxynaphthalene-2-sulfonic acid 6628-04-2, 4-Aminoquinaldine
 6967-12-0, 6-Aminoindazole 7169-34-8, Coumaranone 7336-20-1
 7411-49-6, 3,3',4,4'-Tetraaminobiphenyl tetrahydrochloride 7575-35-1,
 N,N-Bis(2-hydroxyethyl)-p-phenylenediamine 7749-47-5,
 2-Amino-4-methoxy-6-methylpyrimidine 7768-28-7, 2-(2-Hydroxyethyl)phenol
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 14338-36-4, 3-Aminophenylacetic acid 16082-33-0, 3,5-Diaminopyrazole
 16867-03-1, 2-Amino-3-hydroxypyridine 19335-11-6, 5-Aminoindazole

20103-09-7, 2,5-Dichloro-p-phenylenediamine 22715-34-0,
 2-Hydroxy-4,5,6-triaminopyrimidine 23244-87-3, 2,4,5-Triaminopyridine
 23894-07-7, 3,6-Dihydroxy-2,7-naphthalenedisulfonic acid 24119-24-2
 27394-81-6 28020-38-4, 2,3-Diamino-6-methoxypyridine 28491-52-3
 29539-03-5, 5,6-Dihydroxyindoline 34572-45-7, 2-Nitro-1-amino-4-[bis(2-hydroxyethyl)amino]benzene 50610-28-1 54381-16-7 55047-63-7
 55302-96-0, 2-Methyl-5-(2-hydroxyethylamino)phenol 61693-42-3,
 3-Amino-2,4-dichlorophenol 62378-72-7 62496-02-0, 2-Methylamino-4,5,6-triaminopyrimidine 66635-40-3, 4,4'-Diaminostilbene dihydrochloride
 70484-29-6 70643-19-5, 2,4-Diaminophenoxyethanol 74918-21-1,
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 187030-52-0 202525-71-1 202525-73-3,
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 260981-03-1
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
 (Uses)

IT 500-85-6D, Indophenol, derivs.
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
 (Uses)
 (agent for coloring keratin-containing fibers)

RN 500-85-6 HCAPLUS
 CN 2,5-Cyclohexadien-1-one, 4-[(4-hydroxyphenyl)imino]- (9CI) (CA INDEX
 NAME)



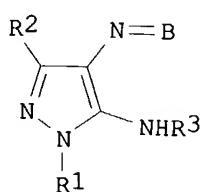
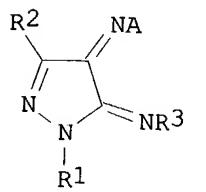
L84 ANSWER 27 OF 44 HCAPLUS COPYRIGHT 2004 ACS on STN
 AN 1997:667755 HCAPLUS
 DN 127:308426
 TI 4,5-Diiminopyrazolines, their preparation and their use in hair dyeing
 IN Malle, Gerard; Vidal, Laurent; Samain, Henri
 PA Oreal S. A., Fr.

SO Eur. Pat. Appl., 26 pp.
CODEN: EPXXDW

DT Patent
LA French

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
PI	EP 796850	A1	19970924	EP 1997-400515	19970306	
	EP 796850	B1	19990728			
	R: DE, ES, FR, GB, IT					
	FR 2746392	A1	19970926	FR 1996-3544		19960321
	FR 2746392	B1	19980430			
	US 5931973	A	19990803	US 1997-828295		19970321
PRAI	FR 1996-3544					
OS	MARPAT 127:308426		19960321			
GI						



AB The hair dyes I (A = optionally substituted Ph; R1, R2, R3 = H, optionally substituted alkyl or Ph, alkoxy, alkylamino, optionally substituted benzyl, NO₂, CF₃, amino) or their tautomers II (B = optionally substituted cyclohexylidene; R1, R2, R3 as for I) are obtained from the appropriate 4,5-diaminopyrazoles and phenols or anilines and incorporated into direct or oxidative hair dyeing compns. Thus, 4,5-diamino-1,3-dimethylpyrazole dihydrochloride and 5-amino-2-methylphenol under oxidative conditions gave 5-amino-2-methyl-N-(5-amino-1,3-dimethyl-4-pyrazolyl)-p-quinone monoimine, which could be used with or without H₂O₂ for dyeing of hair.

IC ICM C07D231-38
ICS A61K007-13

CC 41-5 (Dyes, Organic Pigments, Fluorescent Brighteners, and Photographic Sensitizers)
Section cross-reference(s): 62

ST iminopyrazoline prepns hair dye

IT Alcohols, uses
RL: NUU (Other use, unclassified); USES (Uses)
(amino; in diiminopyrazoline hair dye compns.)

IT Hair preparations
(dyes, oxidative; diiminopyrazolines for)

IT Hair preparations
(dyes; diiminopyrazolines for)

IT Anthraquinone dyes
Azo dyes
(in diiminopyrazoline hair dye compns.)

IT 24905-87-1, 2-Amino-5-(2-hydroxyethylamino)nitrobenzene
RL: NUU (Other use, unclassified); USES (Uses)
(colorant; in diiminopyrazoline hair dye compns.)

IT 29757-24-2, Nitroaniline 31905-57-4, Nitrophenylenediamine
Nitrodiphenylamine
RL: TEM (Technical or engineered material use); USES (Uses) 34344-88-2,

(colorant; in diiminopyrazoline hair dye compns.)

IT 197433-52-6P 197433-53-7P 197433-54-8P
197433-83-3P 197433-84-4P 197433-85-5P
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(diiminopyrazoline hair dye preparation)

IT 197433-55-9 197433-56-0 197433-57-1
197433-58-2 197433-59-3 197433-60-6
197433-61-7 197433-62-8 197433-63-9
197433-64-0 197433-65-1 197433-66-2
197433-67-3 197433-68-4 197433-69-5
197433-70-8 197433-71-9 197433-72-0
197433-74-2 197433-75-3 197433-76-4
197433-77-5 197433-78-6 197433-79-7
197433-80-0 197433-81-1 197433-82-2
RL: TEM (Technical or engineered material use); USES (Uses)
(diiminopyrazolines for hair dye preps.)

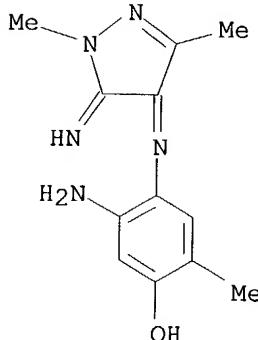
IT 124-68-5 141-43-5, uses 1320-67-8, Propylene glycol monomethyl ether
7664-41-7, Ammonia, uses 7722-84-1, Hydrogen peroxide, uses
RL: NUU (Other use, unclassified); USES (Uses)
(in diiminopyrazoline hair dye compns.)

IT 2835-95-2, 5-Amino-2-methylphenol 21616-59-1, 4,5-Diamino-1-
methylpyrazole dihydrochloride 64068-32-2, 4,5-Diamino-1,3-
dimethylpyrazole dihydrochloride 131311-65-4, 4,5-Diaminopyrazole
dihydrochloride
RL: RCT (Reactant); RACT (Reactant or reagent)
(starting material; in diiminopyrazoline hair dye preparation)

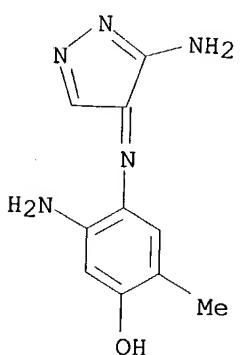
IT 197433-52-6P 197433-53-7P 197433-54-8P
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(diiminopyrazoline hair dye preparation)

RN 197433-52-6 HCPLUS

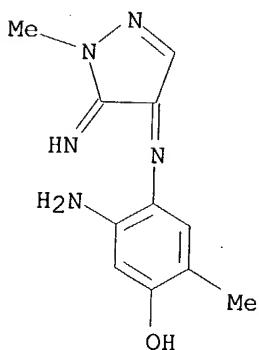
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RN 197433-53-7 HCPLUS
CN Phenol, 5-amino-4-[(3-amino-4H-pyrazol-4-ylidene)amino]-2-methyl- (9CI)
(CA INDEX NAME)



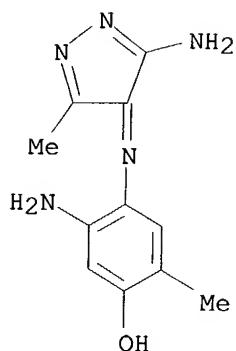
RN 197433-54-8 HCPLUS
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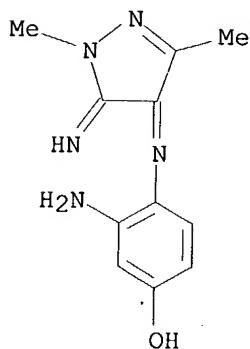
IT 197433-55-9 197433-56-0 197433-57-1
197433-58-2 197433-59-3 197433-60-6
197433-61-7 197433-62-8 197433-63-9
197433-64-0 197433-65-1 197433-66-2
197433-67-3 197433-68-4 197433-69-5
197433-70-8 197433-71-9 197433-72-0
197433-74-2 197433-75-3 197433-76-4
197433-77-5 197433-78-6 197433-79-7
197433-80-0 197433-81-1 197433-82-2

RL: TEM (Technical or engineered material use); USES (Uses)
(diiminopyrazolines for hair dye preps.)

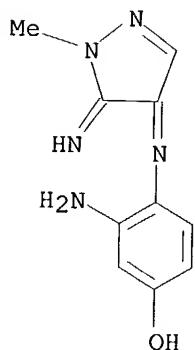
RN 197433-55-9 HCPLUS
CN Phenol, 5-amino-4-[(3-amino-5-methyl-4H-pyrazol-4-ylidene)amino]-2-methyl- (9CI) (CA INDEX NAME)



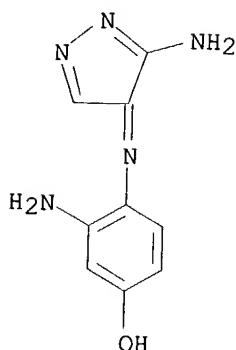
RN 197433-56-0 HCAPLUS
CN Phenol, 3-amino-4-[(1,5-dihydro-5-imino-1,3-dimethyl-4H-pyrazol-4-ylidene)amino]- (9CI) (CA INDEX NAME)



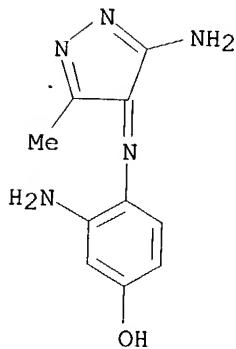
RN 197433-57-1 HCAPLUS
CN Phenol, 3-amino-4-[(1,5-dihydro-5-imino-1-methyl-4H-pyrazol-4-ylidene)amino]- (9CI) (CA INDEX NAME)



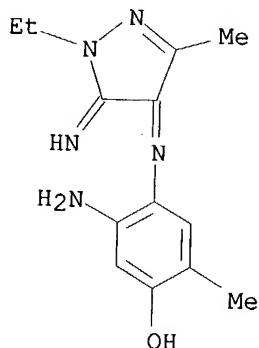
RN 197433-58-2 HCAPLUS
CN Phenol, 3-amino-4-[(3-amino-4H-pyrazol-4-ylidene)amino]- (9CI) (CA INDEX NAME)



RN 197433-59-3 HCAPLUS
CN Phenol, 3-amino-4-[(3-amino-5-methyl-4H-pyrazol-4-ylidene)amino]- (9CI)
(CA INDEX NAME)

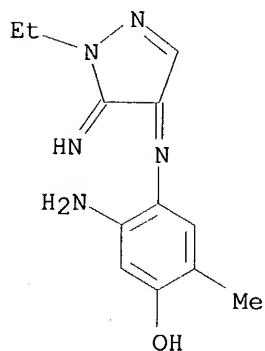


RN 197433-60-6 HCAPLUS
CN Phenol, 5-amino-4-[(1-ethyl-1,5-dihydro-5-imino-3-methyl-4H-pyrazol-4-ylidene)amino]-2-methyl- (9CI) (CA INDEX NAME)



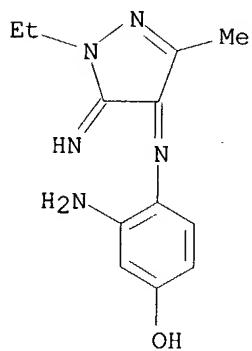
RN 197433-61-7 HCAPLUS
CN Phenol, 5-amino-4-[(1-ethyl-1,5-dihydro-5-imino-4H-pyrazol-4-

ylidene)amino]-2-methyl- (9CI) (CA INDEX NAME)



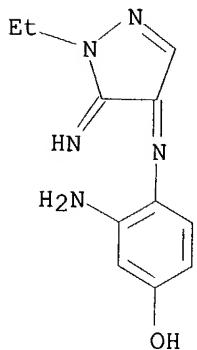
RN 197433-62-8 HCPLUS

CN Phenol, 3-amino-4-[(1-ethyl-1,5-dihydro-5-imino-3-methyl-4H-pyrazol-4-ylidene)amino]- (9CI) (CA INDEX NAME)



RN 197433-63-9 HCPLUS

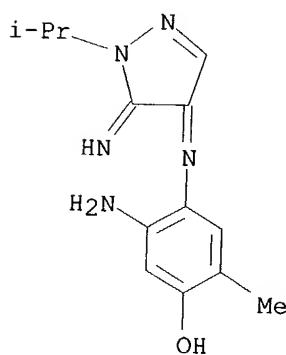
CN Phenol, 3-amino-4-[(1-ethyl-1,5-dihydro-5-imino-4H-pyrazol-4-ylidene)amino]- (9CI) (CA INDEX NAME)



RN 197433-64-0 HCPLUS

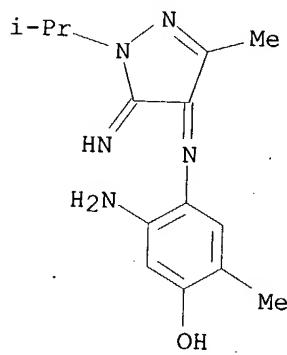
KATHLEEN FULLER EIC 1700 REMSEN 4B28 571/272-2505

CN Phenol, 5-amino-4-[[1,5-dihydro-5-imino-1-(1-methylethyl)-4H-pyrazol-4-ylidene]amino]-2-methyl- (9CI) (CA INDEX NAME)



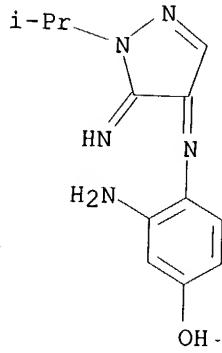
RN 197433-65-1 HCPLUS

CN Phenol, 5-amino-4-[[1,5-dihydro-5-imino-3-methyl-1-(1-methylethyl)-4H-pyrazol-4-ylidene]amino]-2-methyl- (9CI) (CA INDEX NAME)



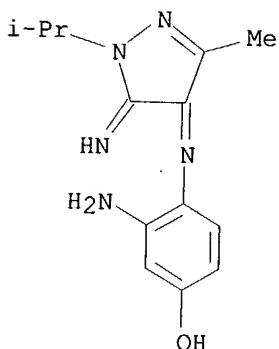
RN 197433-66-2 HCPLUS

CN Phenol, 3-amino-4-[[1,5-dihydro-5-imino-1-(1-methylethyl)-4H-pyrazol-4-ylidene]amino]- (9CI) (CA INDEX NAME)



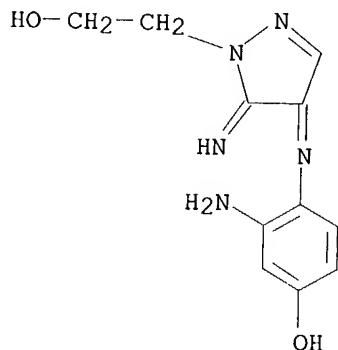
RN 197433-67-3 HCPLUS

CN Phenol, 3-amino-4-[[1,5-dihydro-5-imino-3-methyl-1-(1-methylethyl)-4H-pyrazol-4-ylidene]amino]- (9CI) (CA INDEX NAME)



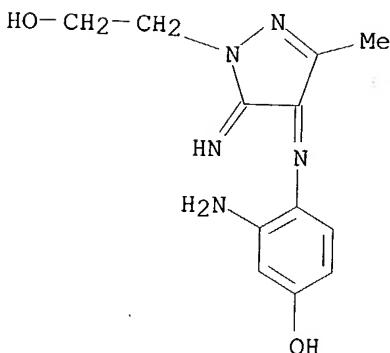
RN 197433-68-4 HCPLUS

CN 1H-Pyrazole-1-ethanol, 4-[(2-amino-4-hydroxyphenyl)imino]-4,5-dihydro-5-imino- (9CI) (CA INDEX NAME)



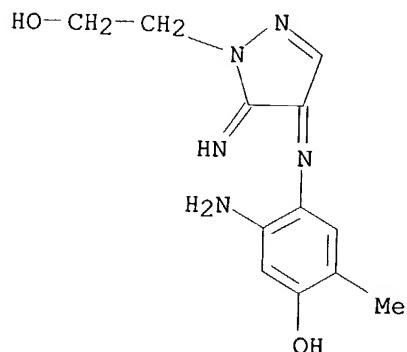
RN 197433-69-5 HCPLUS

CN 1H-Pyrazole-1-ethanol, 4-[(2-amino-4-hydroxyphenyl)imino]-4,5-dihydro-5-imino-3-methyl- (9CI) (CA INDEX NAME)



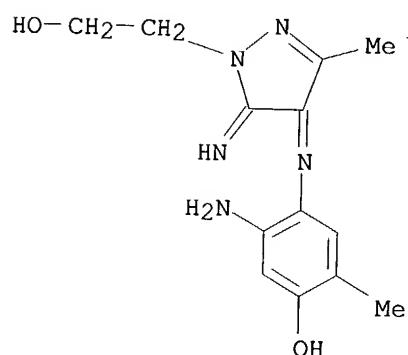
RN 197433-70-8 HCAPLUS

CN 1H-Pyrazole-1-ethanol, 4-[(2-amino-4-hydroxy-5-methylphenyl)imino]-4,5-dihydro-5-imino- (9CI) (CA INDEX NAME)



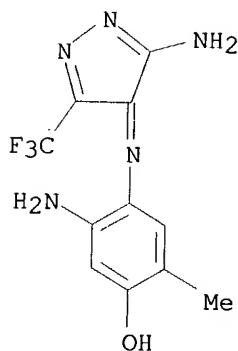
RN 197433-71-9 HCAPLUS

CN 1H-Pyrazole-1-ethanol, 4-[(2-amino-4-hydroxy-5-methylphenyl)imino]-4,5-dihydro-5-imino-3-methyl- (9CI) (CA INDEX NAME)

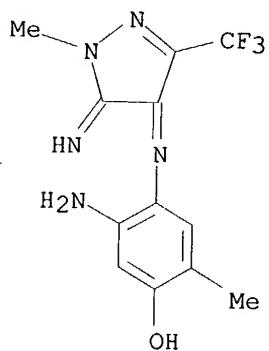


RN 197433-72-0 HCAPLUS

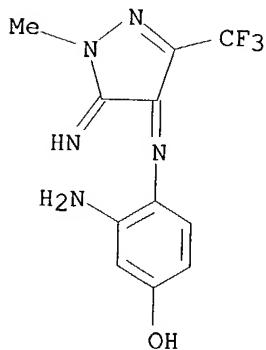
CN Phenol, 5-amino-4-[[3-amino-5-(trifluoromethyl)-4H-pyrazol-4-ylidene]amino]-2-methyl- (9CI) (CA INDEX NAME)



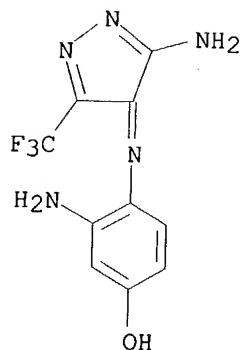
RN 197433-74-2 HCPLUS
CN Phenol, 5-amino-4-[(1,5-dihydro-5-imino-1-methyl-3-(trifluoromethyl)-4H-pyrazol-4-ylidene]amino]-2-methyl- (9CI) (CA INDEX NAME)



RN 197433-75-3 HCPLUS
CN Phenol, 3-amino-4-[(1,5-dihydro-5-imino-1-methyl-3-(trifluoromethyl)-4H-pyrazol-4-ylidene]amino]- (9CI) (CA INDEX NAME)

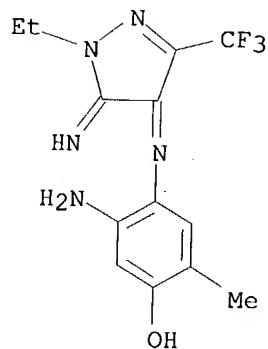


RN 197433-76-4 HCPLUS
CN Phenol, 3-amino-4-[(3-amino-5-(trifluoromethyl)-4H-pyrazol-4-ylidene]amino]- (9CI) (CA INDEX NAME)



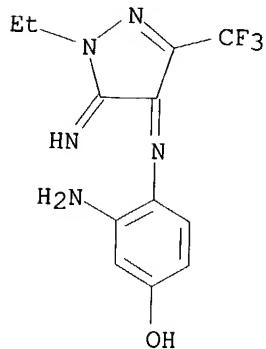
RN 197433-77-5 HCAPLUS

CN Phenol, 5-amino-4-[(1-ethyl-1,5-dihydro-5-imino-3-(trifluoromethyl)-4H-pyrazol-4-ylidene)amino]-2-methyl- (9CI) (CA INDEX NAME)



RN 197433-78-6 HCAPLUS

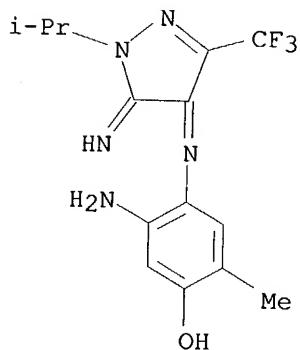
CN Phenol, 3-amino-4-[(1-ethyl-1,5-dihydro-5-imino-3-(trifluoromethyl)-4H-pyrazol-4-ylidene)amino]- (9CI) (CA INDEX NAME)



RN 197433-79-7 HCAPLUS

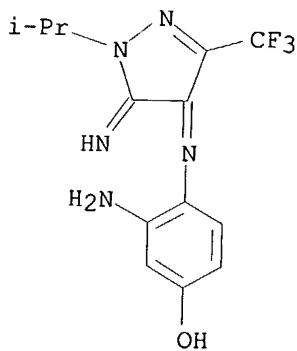
CN Phenol, 5-amino-4-[(1,5-dihydro-5-imino-1-(1-methylethyl)-3-

(trifluoromethyl)-4H-pyrazol-4-ylidene]amino]-2-methyl- (9CI) (CA INDEX NAME)



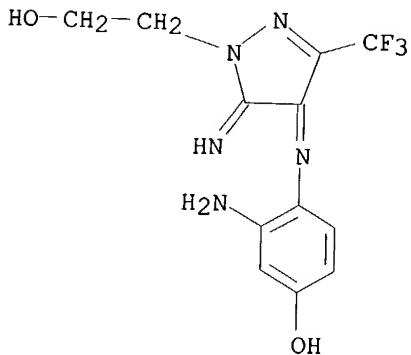
RN 197433-80-0 HCPLUS

CN Phenol, 3-amino-4-[[1,5-dihydro-5-imino-1-(1-methylethyl)-3-(trifluoromethyl)-4H-pyrazol-4-ylidene]amino]- (9CI) (CA INDEX NAME)

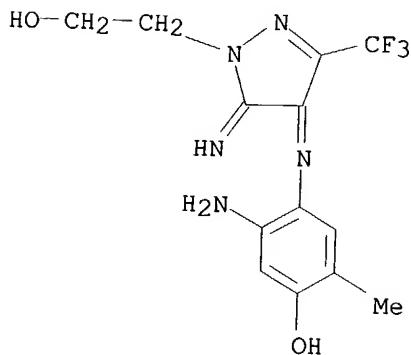


RN 197433-81-1 HCPLUS

CN 1H-Pyrazole-1-ethanol, 4-[(2-amino-4-hydroxyphenyl)imino]-4,5-dihydro-5-imino-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)



RN 197433-82-2 HCPLUS
 CN 1H-Pyrazole-1-ethanol, 4-[(2-amino-4-hydroxy-5-methylphenyl)imino]-4,5-dihydro-5-imino-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)



L84 ANSWER 28 OF 44 HCPLUS COPYRIGHT 2004 ACS on STN
 AN 1997:324068 HCPLUS
 DN 126:297464
 TI Oxidative hair dye compositions containing a substance p antagonist and a strontium salt
 IN De Lacharriere, Olivier; Breton, Lionel; Loussouarn, Genevieve
 PA Oreal S. A., Fr.
 SO Eur. Pat. Appl., 10 pp.
 CODEN: EPXXDW

DT Patent
 LA French

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 764435	A1	19970326	EP 1996-401817	19960823
	EP 764435	B1	19981104		
	R: DE, ES, FR, GB, IT, SE				
	FR 2738741	A1	19970321	FR 1995-10979	19950919
	FR 2738741	B1	19971205		
	WO 9710797	A1	19970327	WO 1996-FR1316	19960823
	W: MX, PL, RU				
	ES 2126989	T3	19990401	ES 1996-401817	19960823
	RU 2140780	C1	19991110	RU 1997-110292	19960823
	JP 09110658	A2	19970428	JP 1996-245241	19960917
	JP 3025446	B2	20000327		
	CA 2185933	AA	19970320	CA 1996-2185933	19960918
	US 5858024	A	19990112	US 1996-716534	19960919
PRAI	FR 1995-10979	A	19950919		
	WO 1996-FR1316	W	19960823		
AB	Oxidative hair dye compns. containing a substance p antagonist and a strontium salt for decreasing or elimination of the irritant effects of dyes and pigments are claimed. A hair dye composition contained paraphenylenediamine 0.4, 4-hydroxyindole 0.1, resorcin 0.3, strontium chloride 5, ethoxylated 7, sodium di-Et aminopropyl laurylaminosuxinamate 3, oleic acid 3, Ethomeen-012 acid diethanolamide 12, propylene glycol 3.5, Et alc. 7, dipropylene glycol 0.5, propylene glycol monomethyl ether 9, 35% sodium metabusulfite 0.455, ammonium acetate 0.8, antioxidants q.s. fragrance and preservative				

q.s., 20% ammonium solution 10, and water q.s. 100%.

IC ICM A61K007-00
ICS A61K007-13; A61K007-48

CC 62-3 (Essential Oils and Cosmetics)

ST oxidative hair dye substance p antagonist; strontium salt oxidative hair dye

IT Dyes
(acid; oxidative hair dye compns. containing substance p antagonist and strontium salt)

IT Heterocyclic compounds
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(aminoaza; oxidative hair dye compns. containing substance p antagonist and strontium salt)

IT Hair preparations
(dyes, oxidative; oxidative hair dye compns. containing substance p antagonist and strontium salt)

IT Spiro compounds
Spiro compounds
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(lactams; oxidative hair dye compns. containing substance p antagonist and strontium salt)

IT Solvents
RL: NUU (Other use, unclassified); USES (Uses)
(organic; oxidative hair dye compns. containing substance p antagonist and strontium salt)

IT Coupling agents
Iris pallida
(oxidative hair dye compns. containing substance p antagonist and strontium salt)

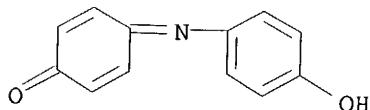
IT Anthraquinone dyes
Borates
Carbonates, biological studies
Chlorides, biological studies
Hydroxides (inorganic)
Iridaceae
Nitrates, biological studies
Peptides, biological studies
Pigments, nonbiological
Sulfates, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(oxidative hair dye compns. containing substance p antagonist and strontium salt)

IT Amino acids, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(salts; oxidative hair dye compns. containing substance p antagonist and strontium salt)

IT Lactams
Lactams
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(spiro; oxidative hair dye compns. containing substance p antagonist and strontium salt)

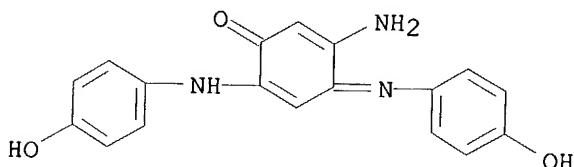
IT 33507-63-0, Substance p
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(antagonists; oxidative hair dye compns. containing substance p antagonist)

and strontium salt)
IT 71-50-1, Acetate, biological studies 100-76-5D, Quinuclidine, derivs.
106-50-3, 1,4-Benzenediamine, biological studies 108-46-3,
1,3-Benzenediol, biological studies 110-89-4D, Piperidine, derivs.,
biological studies 123-75-1D, Pyrrolidine, amino derivs., biological
studies 270-68-8D, Isoindole, derivs. 500-85-6D, Indophenol,
derivs. 537-65-5D, Indamine, derivs. 2380-84-9, 7-Hydroxyindole
2380-86-1, 6-Hydroxyindole 2380-94-1, 4-Hydroxyindole 3131-52-0,
5,6-Dihydroxyindole 6245-87-0D, Indoaniline, derivs. 10476-85-4,
Strontium chloride 129176-97-2, Spantide ii
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
(Uses)
(oxidative hair dye compns. containing substance p antagonist and
strontium salt)
IT 500-85-6D, Indophenol, derivs.
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
(Uses)
(oxidative hair dye compns. containing substance p antagonist and
strontium salt)
RN 500-85-6 HCAPLUS
CN 2,5-Cyclohexadien-1-one, 4-[(4-hydroxyphenyl)imino]- (9CI) (CA INDEX
NAME)

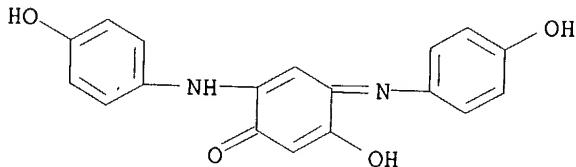


L84 ANSWER 29 OF 44 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1995:1007402 HCAPLUS
DN 124:59077
TI "Trinuclei." Structure determination by 1H, 13C, and 15N NMR
AU Bonnet, A.; Barre, G.; Gilard, P.
CS Laboratories Recherche Avancee, L'Oreal, Aulnay-sous-Bois, 93600, Fr.
SO Journal de Chimie Physique et de Physico-Chimie Biologique (1995), 92(10),
1823-8
CODEN: JCPBAN; ISSN: 0021-7689
PB Elsevier
DT Journal
LA French
AB Oxidative hair dyeing generally involves a "base" and a "coupler" to give an indoaniline or an indophenol. In certain cases, further reaction of the indo-dye results in the formation of a tri-nuclear compound called "Trinucleus". The structures of seven of these compds. have been determined by means of 1H, 13C, and 15N NMR including two-dimensional 1H-13C and 1H-15N heteronuclear correlated techniques. It has been shown that these compds. exist with a benzoquinone imine structure as the central ring. Tautomeric forms may be observed when the "coupler" is resorcinol.
CC 41-8 (Dyes, Organic Pigments, Fluorescent Brighteners, and Photographic
Sensitizers)
ST Section cross-reference(s): 62
IT benzoquinone imine trinuclear hair dye
IT Dyes
(structure determination of oxidatively coupled hair dye products by NMR)
IT Tautomerism and Tautomers
(enamino ketone-enolimine, structure determination of oxidatively coupled
hair

IT dye products by NMR
 36100-61-5 41137-96-6 **69620-25-3** 172228-78-3
172228-79-4 172228-80-7 172228-81-8
 RL: PRP (Properties)
 (structure determination of oxidatively coupled hair dye products by NMR)
 IT **69620-25-3 172228-79-4**
 RL: PRP (Properties)
 (structure determination of oxidatively coupled hair dye products by NMR)
 RN 69620-25-3 HCAPLUS
 CN 2,5-Cyclohexadien-1-one, 5-amino-2-[(4-hydroxyphenyl)amino]-4-[(4-hydroxyphenyl)imino]- (9CI) (CA INDEX NAME)



RN 172228-79-4 HCAPLUS
 CN 2,5-Cyclohexadien-1-one, 5-hydroxy-2-[(4-hydroxyphenyl)amino]-4-[(4-hydroxyphenyl)imino]- (9CI) (CA INDEX NAME)

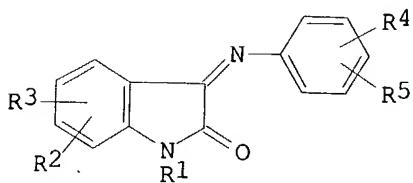


L84 ANSWER 30 OF 44 HCAPLUS COPYRIGHT 2004 ACS on STN
 AN 1990:617781 HCAPLUS
 DN 113:217781
 TI Preparation of 3-aryliminoindolin-2-one hair dyes
 IN Anderson, James S.; Schultz, Thomas M.
 PA Bristol-Myers Co., USA
 SO Eur. Pat. Appl., 9 pp.
 CODEN: EPXXDW

DT Patent
 LA English
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 359465	A2	19900321	EP 1989-309007	19890906
	EP 359465	A3	19901227		
	EP. 359465	B1	19931118		
	R: BE, CH, DE, ES, FR, GB, IT, LI, NL, SE				
	US 4921503	A	19900501	US 1988-243525	19880912
	CA 1327938	A1	19940322	CA 1988-583086	19881115
	JP 02104778	A2	19900417	JP 1989-234827	19890912
	JP 2929203	B2	19990803		
PRAI	US 1988-243525		19880912		

OS MARPAT 113:217781
GT



AB The title compds. I [R1 = H, alkyl, Ac, Bz, Ph; R2, R3 = H, alkyl, OH, NH₂, halo, NO₂, etc.; R4, R5 = H, halo, alkyl, (un)substituted Ph, etc.] are hair dyes. I may be prepared in situ from the corresponding isatins and anilines. A solution of 1 g isatin and 1 g p-phenylenediamine in 30 mL EtOH and 70 mL H₂O was applied to hair for 20 min, to produce a red color. I (11) were prepared as usual.

IC ICM A61K007-13

CC 62-3 (Essential Oils and Cosmetics)

ST Section cross-reference(s): 27

ST aryliminoindolinone prepn hair dye; indolinone arylimino hair dye; isatin aniline deriv hair dye

IT Hair preparations
(dyes, aryliminoindolinones)

IT 29775-73-3P 33828-98-7P 33829-07-1P **42407-83-0P**
57743-35-8P 78662-39-2P 100108-81-4P 130582-65-9P 130582-66-0P
130582-67-1P **130582-68-2P**

IT RL: BIOL (Biological study); PREP (Preparation)
(preparation of, as hair dye)

IT 91-56-5, Isatin

IT RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with arylamines)

IT 99-98-9, 4-Dimethylaminoaniline 101-54-2, 4-Aminodiphenylamine
106-50-3, 1,4-Benzenediamine, reactions 123-30-8 7575-35-1

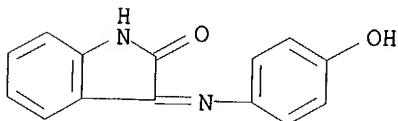
IT RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with isatin, in situ, hair dye by)

IT **42407-83-0P 130582-68-2P**

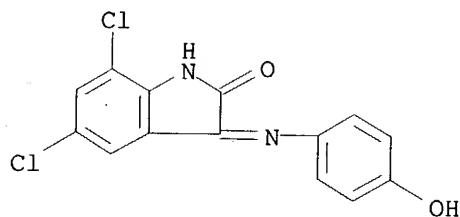
IT RL: BIOL (Biological study); PREP (Preparation)
(preparation of, as hair dye)

RN 42407-83-0 HCPLUS

CN 2H-Indol-2-one, 1,3-dihydro-3-[(4-hydroxyphenyl)imino]- (9CI) (CA INDEX
NAME)



RN 130582-68-2 HCAPLUS
CN 2H-Indol-2-one, 5,7-dichloro-1,3-dihydro-3-[(4-hydroxyphenyl)imino]- (9CI)
(CA INDEX NAME)



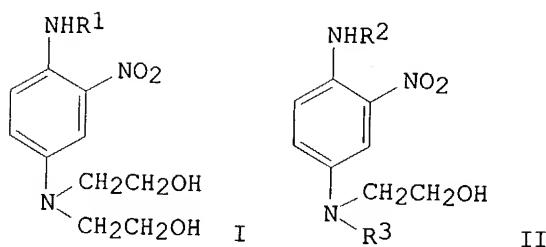
L84 ANSWER 31 OF 44 HCAPLUS COPYRIGHT 2004 ACS on STN
 AN 1986:520486 HCAPLUS
 DN 105:120486
 TI Hair dyes containing 2-nitro-p-phenylene diamine
 IN Grollier, Jean Francois; Cotteret, Jean; Junino, Alex; Genet, Alain
 PA Oreal S. A. , Fr.
 SO Ger. Offen., 26 pp.
 CODEN: GWXXBX

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 3534369	A1	19860403	DE 1985-3534369	19850926
	DE 3534369	C2	19910103		
	FR 2570600	A1	19860328	FR 1985-13243	19850906
	FR 2570600	B1	19881230		
	CA 1253082	A1	19890425	CA 1985-491125	19850919
	AT 8502765	A	19910215	AT 1985-2765	19850923
	AT 393220	B	19910910		
	AU 8547908	A1	19860410	AU 1985-47908	19850924
	AU 576898	B2	19880908		
	DK 8504339	A	19860328	DK 1985-4339	19850925
	DK 164635	B	19920727		
	DK 164635	C	19921214		
	NL 8502619	A	19860416	NL 1985-2619	19850925
	NL 192248	B	19961202		
	NL 192248	C	19970403		
	BR 8504753	A	19860722	BR 1985-4753	19850926
	US 4690685	A	19870901	US 1985-780606	19850926
	CH 667385	A	19881014	CH 1985-4174	19850926
	BE 903333	A1	19860327	BE 1985-215648	19850927
	GB 2164959	A1	19860403	GB 1985-23819	19850927
	GB 2164959	B2	19880427		
	ZA 8507487	A	19860625	ZA 1985-7487	19850927
	JP 61171768	A2	19860802	JP 1985-212720	19850927
	JP 03009085	B4	19910207		
PRAI	LU 1984-85557		19840927		
GI					



AB Hair dyes comprise direct nitrodyes I (R1 = C1-3 alkyl, CH₂CH₂OH) and II (R2 = C2-3 hydroxyalkyl, R3 = C2-3 ω -hydroxyalkyl). II enhances solubilities of I by cosolubilization phenomena. The preparation imparts intensive and very dark nuance. Thus, 3-amino-1-propanol was reacted with 4-fluoro-3-nitro-N,N-bis-(β -hydroxyethyl)aniline to give II (R2 = γ -hydroxypropyl, R3 = CH₂CH₂OH) (III). A hair dye was formulated containing I (R1 = Me) 1.4, III.HCl 2.1, 1-nitro-2-amino-3-hydroxybenzene 0.4, 3-(N-methylamino-4-nitro)phenyl- β , γ -dihydroxypropyl ether 0.6, 1-N-(β -hydroxyethyl)-2-nitro-4-aminobenzene 0.45, 1-N-(β -hydroxyethyl)-2-nitro-4-hydroxybenzene 0.3, [4-N-(β -hydroxyethyl)amino-2-nitro]phenoxyethanol 0.3, lauryl diethanolamide 3, lauric acid 1.5, nonylphenol with 9 mol ethyleneoxide 3.5, 2-butoxyethanol 5, hydroxyethyl cellulose 0.13, 2-amino-2-methyl-1-propanol q.s. to pH = 9.5 and water to 100 g. The preparation dyed hairs dark brown.

IC ICM A61K007-13

CC ICS C09B051-00; D06P001-19

CC 62-3 (Essential Oils and Cosmetics)

ST hair dye nitrophenylenediamine

IT Hair preparations
(dyes, nitrophenylenediamines in)

IT 627-30-5

IT RL: BIOL (Biological study)
(condensation of, with aminoaniline derivative)

IT 29705-38-2

IT RL: BIOL (Biological study)
(condensation of, with aminopropanol)

IT 84041-77-0

IT RL: BIOL (Biological study)
(condensation of, with chloropropanol)

IT 78-96-6 156-87-6

IT RL: BIOL (Biological study)
(condensation of, with fluoroaniline)

IT 2784-94-3 33229-34-4 104226-24-6 104226-25-7

IT RL: BIOL (Biological study)
(hair dyes containing)

IT 95-54-5D, derivs. 95-55-6D, derivs. 106-50-3D, derivs. 108-45-2D, derivs. 108-46-3D, derivs. 123-30-8D, derivs. 500-85-6D, derivs. 537-65-5D, derivs. 591-27-5D, derivs. 6245-87-0D, derivs.

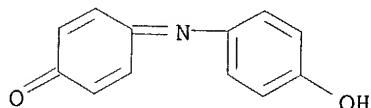
T RL: BIOL (Biological study)
(hair dyes containing nitrophenylenediamines and)

T 104226-19-9P 104226-26-8P 104226-27-9P 104226-28-0P 104226-29-1P
104226-30-4P

T RL: BIOL (Biological study); PREP (Preparation)
(preparation of, as hair dye)

T 500-85-6D, derivs.

RL: BIOL (Biological study)
 (hair dyes containing nitrophenylenediamines and)
 RN 500-85-6 HCPLUS
 CN 2,5-Cyclohexadien-1-one, 4-[(4-hydroxyphenyl)imino]- (9CI) (CA INDEX
 NAME)



L84 ANSWER 32 OF 44 HCPLUS COPYRIGHT 2004 ACS on STN
 AN 1985:137582 HCPLUS

DN 102:137582

TI Dyes for keratin fibers

IN Grollier, Jean Francois

PA Oreal S. A. , Fr.

SO Ger. Offen., 25 pp.

CODEN: GWXXBX

DT Patent

LA German

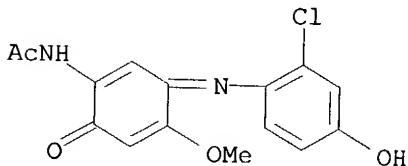
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 3423349	A1	19850110	DE 1984-3423349	19840625
	DE 3423349	C2	19940811		
	AT 8402018	A	19910215	AT 1984-2018	19840620
	AT 393218	B	19910910		
	NL 8401990	A	19850116	NL 1984-1990	19840622
	CA 1222208	A1	19870526	CA 1984-457315	19840622
	BE 900007	A1	19841227	BE 1984-213212	19840626
	GB 2142348	A1	19850116	GB 1984-16246	19840626
	FR 2548895	A1	19850118	FR 1984-10078	19840626
	FR 2548895	B1	19871113		
	JP 60019712	A2	19850131	JP 1984-131821	19840626
	JP 05021086	B4	19930323		
	CH 659582	A	19870213	CH 1984-3127	19840627
	US 4834768	A	19890530	US 1987-133172	19871211
PRAI	LU 1983-84875		19830627		
	US 1984-624254		19840625		
	US 1986-873449		19860606		

AB Keratin fibers, especially hair, are colored with a mixture of direct dyes and xanthan gum [11138-66-2] in a suitable surfactant-containing vehicle. The direct dyes may be nitrobenzene, arylmethane, indoamine, xanthene, acridene, azine, azo, or anthraquinone compds. The xanthan gum thickens the dye preparation so that it does not run or liquefy at high temperature or with pH change. Thus, a coloring shampoo gel contained: 2-amino-5-(N-β-hydroxyethylamino)nitrobenzene [24905-87-1] 0.30, 2-amino-5-(N-methylamino)nitrobenzene [95576-84-4] 1.10, 2-amino-3-methylnitrobenzene [570-24-1] 0.6, 3-hydroxy-4-(N-β-hydroxyethylamino)nitrobenzene [95576-85-5] 0.1, Basic Blue 26 [2580-56-5] 0.05, lauric acid diethanolamide 4, Sactipon 286 20, Kathon CG 0.05, xanthan gum 1, dilute NaOH to pH 8, and H2O to 100 g. Dark chestnut-brown hair treated with the preparation for 30 min, rinsed, and dried had an intense auburn shimmer.

IC ICM A61K007-13

ICS C09B067-00; D06P003-14
 CC 62-3 (Essential Oils and Cosmetics)
 ST xanthan gum hair dye gel; direct hair dye gel; nitrobenzene deriv hair dye
 gel
 IT Thickening agents
 (xanthan gum, for direct hair dyes)
 IT Hair preparations
 (dyes, direct, gels, xanthan gum thickener for)
 IT 11138-66-2
 RL: BIOL (Biological study)
 (hair dye gels containing)
 IT 65-61-2 81-88-9 121-88-0 128-95-0 130-22-3 477-73-6 548-62-9
 570-24-1 603-85-0 610-81-1 2475-45-8 2580-56-5 2784-94-3
 6441-93-6 10228-03-2 16292-90-3 20721-50-0 24905-87-1 33229-34-4
 38866-20-5 59820-63-2 65235-31-6 68391-30-0 81612-54-6
 84041-77-0 85765-48-6 86419-68-3 95576-84-4 95576-85-5
 95576-86-6 95576-87-7 **95576-88-8**
 RL: BIOL (Biological study)
 (hair dye gels containing xanthan gum and)
 IT **95576-88-8**
 RL: BIOL (Biological study)
 (hair dye gels containing xanthan gum and)
 RN 95576-88-8 HCAPLUS
 CN Acetamide, N-[3-[(2-chloro-4-hydroxyphenyl)imino]-4-methoxy-6-oxo-1,4-cyclohexadien-1-yl]- (9CI) (CA INDEX NAME)

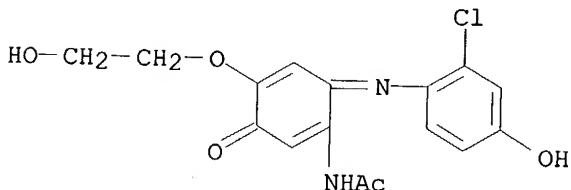


L84 ANSWER 33 OF 44 HCAPLUS COPYRIGHT 2004 ACS on STN
 AN 1985:80293 HCAPLUS
 DN 102:80293
 TI Indoanilines and indophenols and hair dye containing these compounds
 IN Bugaut, Andree; Junino, Alex
 PA Oreal S. A. , Fr.
 SO Ger. Offen., 40 pp.

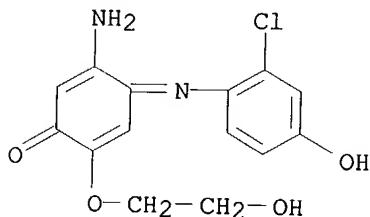
CODEN: GWXXBX
 DT Patent
 LA German
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 3421812	A1	19841213	DE 1984-3421812	19840612
	DE 3421812	C2	19940120		
	FR 2547301	A1	19841214	FR 1983-9735	19830613
	FR 2547301	B1	19850816		
	GB 2141437	A1	19841219	GB 1984-14913	19840612
	GB 2141437	B2	19870318		
	CH 661277	A	19870715	CH 1984-2843	19840612
	CA 1238645	A1	19880628	CA 1984-456378	19840612
	BE 899894	A1	19841213	BE 1984-213122	19840613
	JP 60008249	A2	19850117	JP 1984-120052	19840613

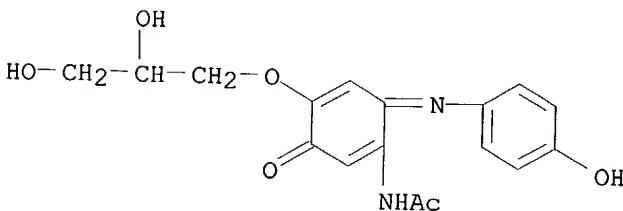
IT 94789-65-8 94789-80-7
 (oxidative coupling of, with phenol derivative)
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (oxidative coupling of, with phenylenediamine)
 IT 94789-72-7
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (oxidative coupling of, with phenylenediamine derivative)
 IT 94789-67-0P
 RL: PREP (Preparation)
 (hair dye, manufacture and deacetylation and use of)
 RN 94789-67-0 HCPLUS
 CN Acetamide, N-[6-[(2-chloro-4-hydroxyphenyl)imino]-4-(2-hydroxyethoxy)-3-oxo-1,4-cyclohexadien-1-yl]- (9CI) (CA INDEX NAME)



IT 94789-68-1P 94789-69-2P
 RL: PREP (Preparation)
 (hair dye, manufacture and use of)
 RN 94789-68-1 HCPLUS
 CN 2,5-Cyclohexadien-1-one, 5-amino-4-[(2-chloro-4-hydroxyphenyl)imino]-2-(2-hydroxyethoxy)- (9CI) (CA INDEX NAME)



RN 94789-69-2 HCPLUS
 CN Acetamide, N-[4-(2,3-dihydroxypropoxy)-6-[(4-hydroxyphenyl)imino]-3-oxo-1,4-cyclohexadien-1-yl]- (9CI) (CA INDEX NAME)



DN 99:58732
 TI Benzoquinone derivatives for direct hair dyes
 IN Lang, Gerard; Malaval, Alain; Grollier, Jean Francois; Rosenbaum, Georges
 PA Oreal S. A., Fr.
 SO Ger. Offen., 25 pp.
 CODEN: GWXXBX

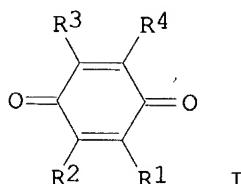
DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 3244454	A1	19830609	DE 1982-3244454	19821201
	DE 3244454	C2	19900201		
	FR 2517200	A1	19830603	FR 1982-20009	19821129
	FR 2517200	B1	19850412		
	GB 2110722	A1	19830622	GB 1982-34178	19821201
	GB 2110722	B2	19850807		
	JP 58109406	A2	19830629	JP 1982-211212	19821201
	JP 02006324	B4	19900208		
	CH 655439	A	19860430	CH 1982-6992	19821201
	BE 895224	A1	19830602	BE 1982-209630	19821202
	CA 1180283	A1	19850101	CA 1982-416878	19821202
	US 4867751	A	19890919	US 1984-682475	19841217
	PRAI	LU 1981-83807		19811202	
	US 1982-445967		19821201		

GI



AB Benzoquinones (I; where R1 and R3 = H, OH, alkoxy, or hydroxyalkyl and R2 and R4 = H, OH, alkoxy, alkyl, or Ph, etc.), are useful as hair direct dyes suitable for formulating as creams, gels, oils, etc. A cream was prepared containing 2,3,5,6-tetrahydroxy-1,4-benzoquinone [319-89-1] 0.3, cetyl

alc. 17.0, Mertigal CS 15 E 6.0, and oleyl alc. 3.0 g; citric acid was added to pH 2.3 and distilled water to 100 g. When applied to light-brown hair for 30 min followed by washing and drying, the hair had a coppery gold tone.

IC A61K007-13

CC 62-3 (Essential Oils and Cosmetics)

ST benzoquinone hair dye

IT Hair preparations

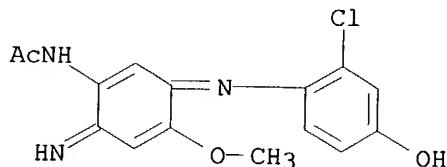
(dyes, direct, benzoquinones for)

IT 83-72-7 85-23-4 106-51-4, biological studies 106-51-4D, derivs.
 319-89-1 484-89-9 490-91-5 519-67-5 527-61-7 548-59-4 605-94-7
 615-94-1 825-33-2 1760-67-4 2188-79-6 2207-58-1 2446-75-5
 2880-58-2 4502-01-6 62267-71-4 86516-11-2 **86516-12-3**

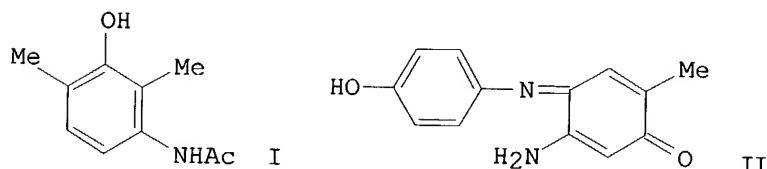
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(hair direct dye compns. containing)

IT 86516-12-3
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
 (Uses)
 (hair direct dye compns. containing)
 RN 86516-12-3 HCAPLUS
 CN Acetamide, N-[3-[(2-chloro-4-hydroxyphenyl)imino]-6-imino-4-methoxy-1,4-cyclohexadien-1-yl]- (9CI) (CA INDEX NAME)

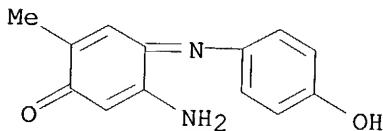


L84 ANSWER 35 OF 44 HCAPLUS COPYRIGHT 2004 ACS on STN
 AN 1982:603088 HCAPLUS
 DN 97:203088
 TI Cutaneous penetration of some hairdyes in the hairless rat
 AU Tsomi, V.; Kalopissis, G.
 CS Lab. Rech., Soc. Oreal, Aulnay Sous Bois, 93601, Fr.
 SO Toxicological European Research (1982), 4(3), 119-27
 CODEN: TOERD9; ISSN: 0249-6402
 DT Journal
 LA English
 GI

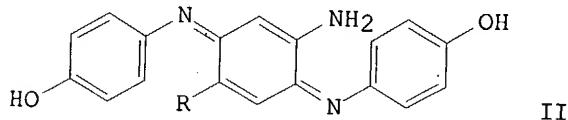


AB The cutaneous penetration of certain number of oxidation dyestuffs for hair [p-aminophenol [123-30-8], 2,4-diaminoanisole [615-05-4], 2,4-diaminophenoxyethanol [70643-19-5], resorcinol [108-46-3], 3-acetylamino-2,6-dimethylphenol (I) [28739-71-1] and the indamine N-(4-hydroxyphenyl)-3-amino-6-methylbenzoquinoneimine (II) [30749-78-1]], either alone or when formulated with other dyestuffs, and under various exptl. conditions, was evaluated in the hairless rat using C14 labeled mols. Dyestuffs having indamine structures, formed by oxidation of their precursors (bases, couplers), for all practical purposes do not cross the cutaneous barrier. No fixation of those dyestuffs investigated (resorcinol, 2,4-diaminoanisole, 2,4-diaminophenoxyethanol) which do pass through the cutaneous barrier is found in either liver or thyroid of the exptl. animals, 4 days after their topical application. The amount of I which penetrates the cutaneous barrier is constant for quantities of hair dye solution ≥ 20 mg/cm² of skin. The type and composition of the excipient used in the formulation of hair dyes plays an important role in their penetration.

CC 62-3 (Essential Oils and Cosmetics)
 Section cross-reference(s): 4
 ST hair dye skin penetration
 IT Skin, metabolism
 (hair dyes penetration in)
 IT Hair preparations
 (dyes, penetration of, through skin)
 IT 108-46-3, biological studies 123-30-8 615-05-4 28739-71-1
 30749-78-1 70643-19-5
 RL: BIOL (Biological study)
 (hair dye material, cutaneous penetration of)
 IT 30749-78-1
 RL: BIOL (Biological study)
 (hair dye material, cutaneous penetration of)
 RN 30749-78-1 HCPLUS
 CN 2,5-Cyclohexadien-1-one, 5-amino-4-[(4-hydroxyphenyl)imino]-2-methyl-
 (9CI) (CA INDEX NAME)



L84 ANSWER 36 OF 44 HCPLUS COPYRIGHT 2004 ACS on STN
 AN 1979:616661 HCPLUS
 DN 91:216661
 TI The role of meta difunctional benzene derivatives in oxidative hair dyeing. II. Reactions with p-aminophenols
 AU Brown, Keith C.; Corbett, John F.
 CS Clairol Res. Lab., Stamford, CT, 06902, USA
 SO Journal of the Society of Cosmetic Chemists (1979), 30(4), 191-211
 CODEN: JSCCA5; ISSN: 0037-9832
 DT Journal
 LA English
 GI

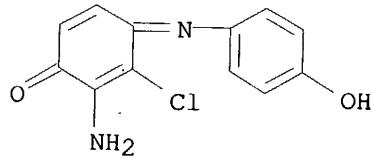


AB In oxidative dyeing, oxidation of p-aminophenols to p-benzoquinone monoimines is the 1st step in color formation. The monoimines react as a free base at pH >8. Coupling of neutral monoimines with meta difunctional benzene couplers as the free bases or anions results in the formation of leucoindo dyes which undergo rapid oxidation to highly colored indo dyes. Oxidation of mixts. containing both p-aminophenol (I) [123-30-8] and p-phenylenediamine [106-50-3] results in preferential oxidation of I. In the absence of p-phenylenediamine to give analogs (II, R = OH and CH2) of Bandrowski's base. In the presence of couplers, these latter reactions are suppressed and reaction occurs preferentially with the coupler. The reactivity of

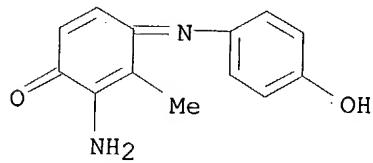
couplers towards monoimines is in the order resorcinol [108-46-3] > 4-amino-2-hydroxytoluene [2835-95-2] > 2,4-diaminoanisole [615-05-4] > m-aminophenol [591-27-5]. Thus, inclusion of p-aminophenols in oxidation dye formulations contributes significantly to the color produced on hair and the resultant dyes have comparable stability to those formed from p-phenylenediamine.

CC 62-3 (Essential Oils and Cosmetics)
Section cross-reference(s): 22, 25, 40
ST oxidn hair dye amino phenol; meta difunctional benzene hair dye
IT Oxidation
 (of aminophenols, in hair dye preparation)
IT Kinetics of coupling reaction
 (of imines, with aminophenols, in hair dye preparation)
IT Kinetics of hydrolysis
 (of indophenol oxidative hair dyes)
IT Ultraviolet and visible spectra
 (substituent effect on reactivity and, of aminophenols, in hair dye preparation)
IT Hair preparations
 (dyes, oxidative, aminophenols reactions with coupling agents in relation to)
IT 95-80-7 106-50-3, reactions 108-45-2, reactions 615-05-4 823-40-5
RL: RCT (Reactant); RACT (Reactant or reagent)
 (coupling reaction of, in oxidative hair dye formation)
IT 2835-99-6
RL: RCT (Reactant); RACT (Reactant or reagent)
 (coupling reaction of, with aminophenolate, in oxidative hair dye formation)
IT 95-88-5 496-73-1
RL: RCT (Reactant); RACT (Reactant or reagent)
 (coupling reaction of, with aminophenols)
IT 6358-06-1 53222-92-7
RL: RCT (Reactant); RACT (Reactant or reagent)
 (coupling reaction of, with monoimines, and oxidative hair dye formation)
IT 108-46-3, biological studies 591-27-5 2835-95-2
RL: RCT (Reactant); RACT (Reactant or reagent)
 (coupling reactions of, in hair dye formation)
IT 72083-93-3 72083-94-4 72083-95-5
72083-96-6
RL: PRP (Properties)
 (cyclization and hydrolytic kinetics of, hair dye formation in relation to)
IT 24093-25-2P 71198-55-5P
RL: PRP (Properties); PREP (Preparation)
 (formation and decomposition kinetics of, hair dye formation in relation to)
IT 3009-34-5P
RL: RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
 (formation and hydrolysis of)
IT 106-51-4P, preparation
RL: FORM (Formation, nonpreparative); PREP (Preparation)
 (formation of, by hydrolysis of benzoquinone imine)
IT 71082-02-5P
RL: FORM (Formation, nonpreparative); PREP (Preparation)
 (formation of, in hair dye prepns.)
IT 72083-92-2P
RL: FORM (Formation, nonpreparative); PREP (Preparation)
 (formation of, in oxidative hair dye formation)

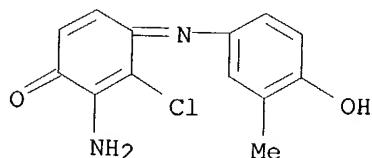
IT 500-85-6P 2582-41-4P 2701-88-4P
24093-23-0P 24093-25-2P 30127-99-2P
30128-00-8P 52200-93-8P 72083-78-4P
72083-79-5P 72083-80-8P 72083-81-9P
72083-82-0P 72083-83-1P 72083-84-2P
72083-85-3P 72083-86-4P 72083-87-5P
72083-88-6P 72083-89-7P 72083-90-0P
72083-91-1P
RL: FORM (Formation, nonpreparative); PREP (Preparation)
(formation of, in oxidative hair dyeing)
IT 31679-92-2P
RL: PREP (Preparation)
(preparation of)
IT 2835-96-3
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with chlororesorcinol)
IT 95-87-4
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with methylbenzoquinone monoimine)
IT 4370-76-7 30168-96-8 30168-97-9
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with phenolate)
IT 4370-75-6
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with xylanol)
IT 123-30-8
RL: RCT (Reactant); RACT (Reactant or reagent)
(reactions of, in oxidative hair dyeing)
IT 72083-93-3 72083-94-4 72083-95-5
72083-96-6
RL: PRP (Properties)
(cyclization and hydrolytic kinetics of, hair dye formation
in relation to)
RN 72083-93-3 HCPLUS
CN 2,5-Cyclohexadien-1-one, 2-amino-3-chloro-4-[(4-hydroxyphenyl)imino]-
(9CI) (CA INDEX NAME)



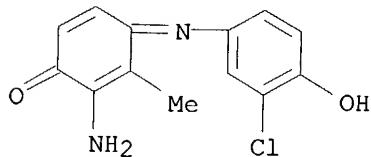
RN 72083-94-4 HCPLUS
CN 2,5-Cyclohexadien-1-one, 2-amino-4-[(4-hydroxyphenyl)imino]-3-methyl-
(9CI) (CA INDEX NAME)



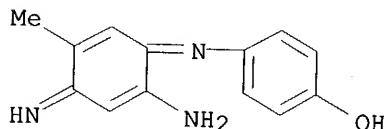
RN 72083-95-5 HCAPLUS
CN 2,5-Cyclohexadien-1-one, 2-amino-3-chloro-4-[(4-hydroxy-3-methylphenyl)imino]- (9CI) (CA INDEX NAME)



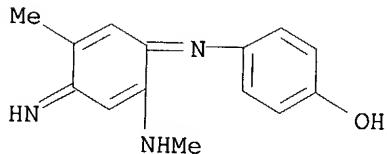
RN 72083-96-6 HCAPLUS
CN 2,5-Cyclohexadien-1-one, 2-amino-4-[(3-chloro-4-hydroxyphenyl)imino]-3-methyl- (9CI) (CA INDEX NAME)



IT 24093-25-2P 71198-55-5P
RL: PRP (Properties); PREP (Preparation)
(formation and decomposition kinetics of, hair dye formation in
relation to)
RN 24093-25-2 HCAPLUS
CN Phenol, 4-[(2-amino-4-imino-5-methyl-2,5-cyclohexadien-1-ylidene)amino]- (9CI) (CA INDEX NAME)

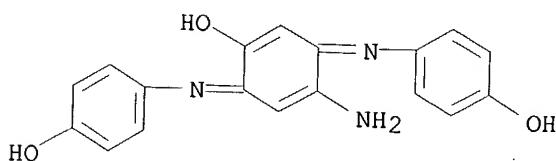


RN 71198-55-5 HCAPLUS
CN Phenol, 4-[(4-imino-5-methyl-2-(methylamino)-2,5-cyclohexadien-1-ylidene)amino]- (9CI) (CA INDEX NAME)



IT 71082-02-5P
RL: FORM (Formation, nonpreparative); PREP (Preparation)
(formation of, in hair dye prepns.)
RN 71082-02-5 HCAPLUS

CN Phenol, 4,4'-[(2-amino-5-hydroxy-2,5-cyclohexadiene-1,4-diylidene)dinitrilo]bis- (9CI) (CA INDEX NAME)

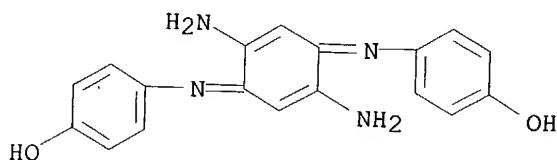


IT 72083-92-2P

RL: FORM (Formation, nonpreparative); PREP (Preparation)
(formation of, in oxidative hair dye formation)

RN 72083-92-2 HCPLUS

CN Phenol, 4,4'-[(2,5-diamino-2,5-cyclohexadiene-1,4-diylidene)dinitrilo]bis- (9CI) (CA INDEX NAME)

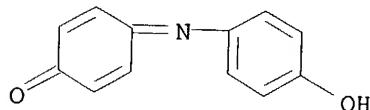


IT 500-85-6P 2582-41-4P 2701-88-4P
24093-23-0P 24093-25-2P 30127-99-2P
30128-00-8P 52200-93-8P 72083-78-4P
72083-79-5P 72083-80-8P 72083-81-9P
72083-82-0P 72083-83-1P 72083-84-2P
72083-85-3P 72083-86-4P 72083-87-5P
72083-88-6P 72083-89-7P 72083-90-0P
72083-91-1P

RL: FORM (Formation, nonpreparative); PREP (Preparation)
(formation of, in oxidative hair dyeing)

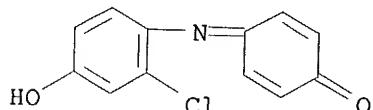
RN 500-85-6 HCPLUS

CN 2,5-Cyclohexadien-1-one, 4-[(4-hydroxyphenyl)imino]- (9CI) (CA INDEX NAME)

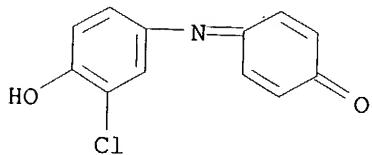


RN 2582-41-4 HCPLUS

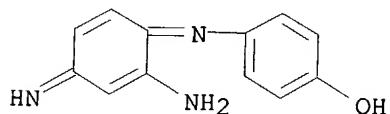
CN 2,5-Cyclohexadien-1-one, 4-[(2-chloro-4-hydroxyphenyl)imino]- (9CI) (CA INDEX NAME)



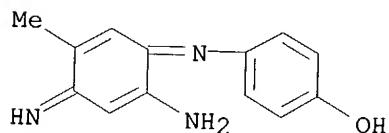
RN 2701-88-4 HCAPLUS
CN 2,5-Cyclohexadien-1-one, 4-[(3-chloro-4-hydroxyphenyl)imino]- (9CI) (CA
INDEX NAME)



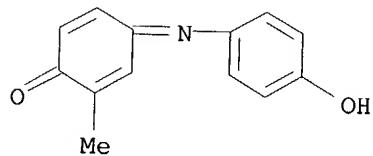
RN 24093-23-0 HCAPLUS
CN Phenol, 4-[(2-amino-4-imino-2,5-cyclohexadien-1-ylidene)amino]- (9CI) (CA
INDEX NAME)



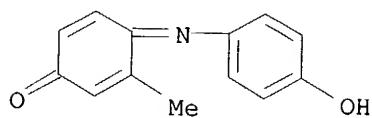
RN 24093-25-2 HCAPLUS
CN Phenol, 4-[(2-amino-4-imino-5-methyl-2,5-cyclohexadien-1-ylidene)amino]-
(9CI) (CA INDEX NAME)



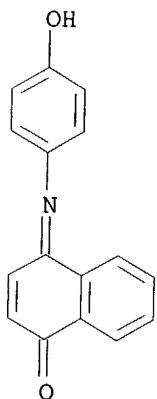
RN 30127-99-2 HCAPLUS
CN 2,5-Cyclohexadien-1-one, 4-[(4-hydroxyphenyl)imino]-2-methyl- (9CI) (CA
INDEX NAME)



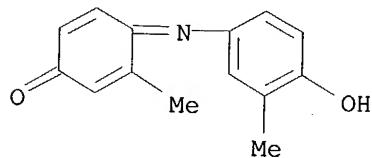
RN 30128-00-8 HCAPLUS
CN 2,5-Cyclohexadien-1-one, 4-[(4-hydroxyphenyl)imino]-3-methyl- (9CI) (CA
INDEX NAME)



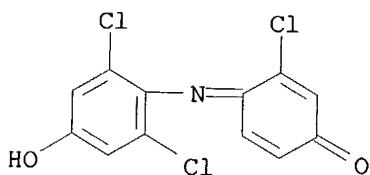
RN 52200-93-8 HCPLUS
CN 1(4H)-Naphthalenone, 4-[(4-hydroxyphenyl)imino]- (9CI) (CA INDEX NAME)



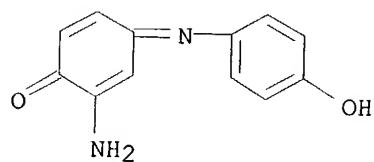
RN 72083-78-4 HCPLUS
CN 2,5-Cyclohexadien-1-one, 4-[(4-hydroxy-3-methylphenyl)imino]-3-methyl- (9CI) (CA INDEX NAME)



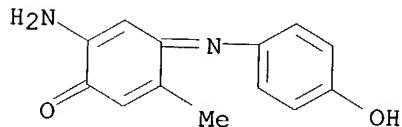
RN 72083-79-5 HCPLUS
CN 2,5-Cyclohexadien-1-one, 3-chloro-4-[(2,6-dichloro-4-hydroxyphenyl)imino]- (9CI) (CA INDEX NAME)



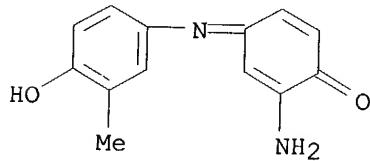
RN 72083-80-8 HCPLUS
CN 2,5-Cyclohexadien-1-one, 2-amino-4-[(4-hydroxyphenyl)imino]- (9CI) (CA INDEX NAME)



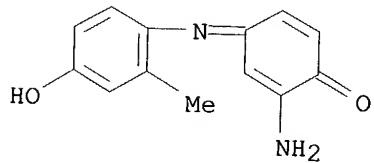
RN 72083-81-9 HCPLUS
CN 2,5-Cyclohexadien-1-one, 2-amino-4-[(4-hydroxyphenyl)imino]-5-methyl-
(9CI) (CA INDEX NAME)



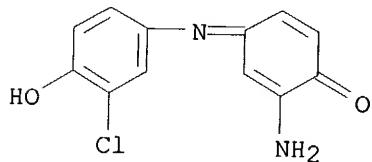
RN 72083-82-0 HCPLUS
CN 2,5-Cyclohexadien-1-one, 2-amino-4-[(4-hydroxy-3-methylphenyl)imino]-
(9CI) (CA INDEX NAME)



RN 72083-83-1 HCPLUS
CN 2,5-Cyclohexadien-1-one, 2-amino-4-[(4-hydroxy-2-methylphenyl)imino]-
(9CI) (CA INDEX NAME)

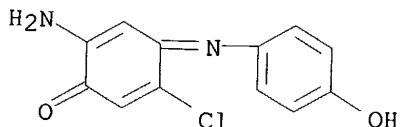


RN 72083-84-2 HCPLUS
CN 2,5-Cyclohexadien-1-one, 2-amino-4-[(3-chloro-4-hydroxyphenyl)imino]-
(9CI) (CA INDEX NAME)



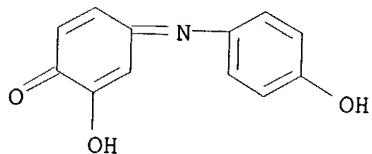
RN 72083-85-3 HCAPLUS

CN 2,5-Cyclohexadien-1-one, 2-amino-5-chloro-4-[(4-hydroxyphenyl)imino]-
(9CI) (CA INDEX NAME)



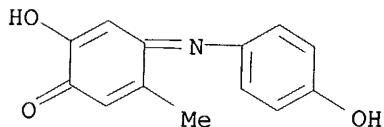
RN 72083-86-4 HCAPLUS

CN 2,5-Cyclohexadien-1-one, 2-hydroxy-4-[(4-hydroxyphenyl)imino]- (9CI) (CA
INDEX NAME)



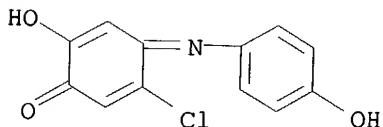
RN 72083-87-5 HCAPLUS

CN 2,5-Cyclohexadien-1-one, 2-hydroxy-4-[(4-hydroxyphenyl)imino]-5-methyl-
(9CI) (CA INDEX NAME)



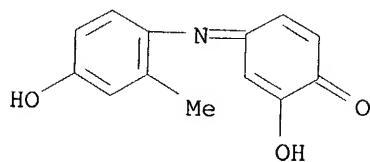
RN 72083-88-6 HCAPLUS

CN 2,5-Cyclohexadien-1-one, 5-chloro-2-hydroxy-4-[(4-hydroxyphenyl)imino]-
(9CI) (CA INDEX NAME)

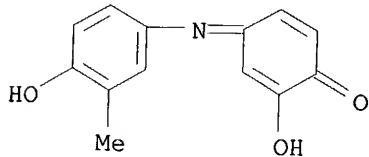


RN 72083-89-7 HCAPLUS

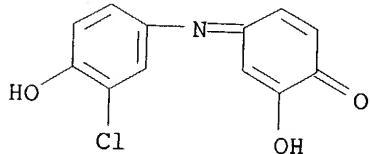
CN 2,5-Cyclohexadien-1-one, 2-hydroxy-4-[(4-hydroxy-2-methylphenyl)imino]-
(9CI) (CA INDEX NAME)



RN 72083-90-0 HCAPLUS
CN 2,5-Cyclohexadien-1-one, 2-hydroxy-4-[(4-hydroxy-3-methylphenyl)imino]-
(9CI) (CA INDEX NAME)



RN 72083-91-1 HCAPLUS
CN 2,5-Cyclohexadien-1-one, 4-[(3-chloro-4-hydroxyphenyl)imino]-2-hydroxy-
(9CI) (CA INDEX NAME)



L84 ANSWER 37 OF 44 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1979:12166 HCAPLUS
DN 90:12166

TI Liquid hair dye compositions
IN Grollier, Jean Francois; Fourcadier, Chantal
PA Oreal S. A., Fr.
SO Fr. Demande, 33 pp.

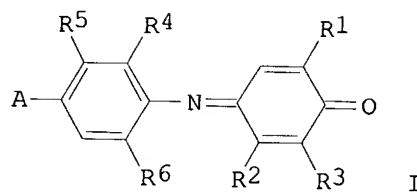
CODEN: FRXXBL

DT Patent

LA French

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	FR 2359182	A1	19780217	FR 1976-22276	19760721
	FR 2359182	B1	19801024		
PRAI	FR 1976-22276		19760721		
GI					



AB Indoleaniline and indophenol hair dyes (I; R1-R6 = H, Cl, or numerous simple mol. substituents; A = OH or disubstituted N) are stable for long periods, when dissolved at 0.001-5% in solvents comprising alcs. and ethylene glycol monoalkyl ethers; the solns. are mixed with standard aqueous

cosmetic supports just prior to application. Thus, N-(4-hydroxy-2-chlorophenyl)-3-acetylaminio-2,6-dimethylbenzoquinonimine [66612-10-0] 0.66, N-(4-hydroxy-2-chlorophenyl)-3-ureido-6-methylbenzoquinonimine [59996-96-2] 0.13, and N-[4-(ethylcarbamoylmethylamino)-2-methylphenyl]-3-acetylaminio-6-methylbenzoquinonimine [55303-63-4] 0.018 g were dissolved in EtOH to 100 mL. After 8-mo storage in a sealed flask, 5 mL of this solution was mixed with 20 mL of a cosmetic support solution and applied as a rinse to light brown hair. After drying, the hair was easy to manage and had a lustrous mahogany tint.

IC C09B053-00

CC 62-3 (Essential Oils and Cosmetics)

ST indophenol indoleaniline hair dye; aniline deriv hair dye

IT Hair preparations

(dyes, benzoquinonephenylimines for)

IT 30810-03-8 36635-96-8 52136-25-1 52136-39-7 55303-61-2
55303-63-4 56330-30-4 56330-67-7 59996-96-2
66612-10-0 66612-11-1 66612-12-2 66612-13-3

RL: BIOL (Biological study)

(hair dye composition containing)

IT 36635-96-8 59996-96-2 66612-10-0

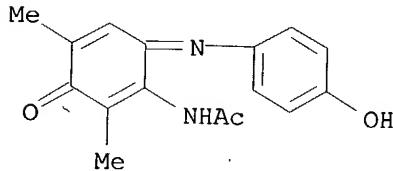
66612-11-1

RL: BIOL (Biological study)

(hair dye composition containing)

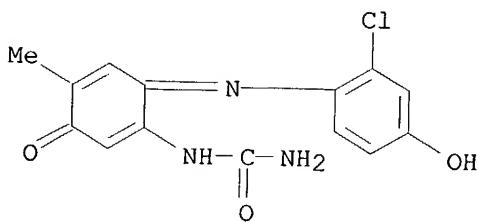
RN 36635-96-8 HCPLUS

CN Acetamide, N-[6-[(4-hydroxyphenyl)imino]-2,4-dimethyl-3-oxo-1,4-cyclohexadien-1-yl]- (9CI) (CA INDEX NAME)

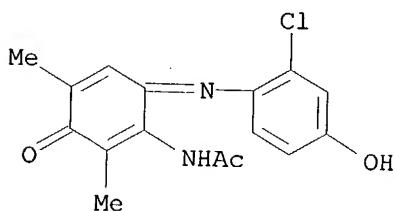


RN 59996-96-2 HCPLUS

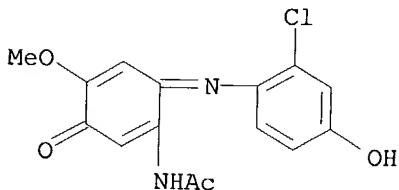
CN Urea, [6-[(2-chloro-4-hydroxyphenyl)imino]-4-methyl-3-oxo-1,4-cyclohexadien-1-yl]- (9CI) (CA INDEX NAME)



RN 66612-10-0 HCAPLUS
 CN Acetamide, N-[6-[(2-chloro-4-hydroxyphenyl)imino]-2,4-dimethyl-3-oxo-1,4-cyclohexadien-1-yl]- (9CI) (CA INDEX NAME)



RN 66612-11-1 HCAPLUS
 CN Acetamide, N-[6-[(2-chloro-4-hydroxyphenyl)imino]-4-methoxy-3-oxo-1,4-cyclohexadien-1-yl]- (9CI) (CA INDEX NAME)



L84 ANSWER 38 OF 44 HCAPLUS COPYRIGHT 2004 ACS on STN
 AN 1978:430590 HCAPLUS

DN 89:30590

TI Dye solutions for coloring hair

IN Grollier, Jean Francois

PA Oreal S. A., Fr.

SO Ger. Offen., 52 pp.

CODEN: GWXXBX

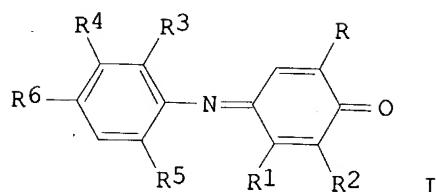
DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 2732812	A1	19780126	DE 1977-2732812	19770720
	DE 2732812	B2	19810723		
	DE 2732812	C3	19820506		
	US 4184844	A	19800122	US 1977-816499	19770718
	BE 856986	A1	19780120	BE 1977-179494	19770720

NL 7708063	A	19780124	NL 1977-8063	19770720
NL 176789	B	19850102		
NL 176789	C	19850603		
JP 53012431	A2	19780203	JP 1977-87224	19770720
JP 62007165	B4	19870216		
AU 7727176	A1	19790125	AU 1977-27176	19770720
AU 520306	B2	19820128		
AT 7705237	A	19790715	AT 1977-5237	19770720
AT 355221	B	19800225		
GB 1565105	A	19800416	GB 1977-30554	19770720
CH 624008	A	19810715	CH 1977-9025	19770720
CA 1105386	A1	19810721	CA 1977-283133	19770720
PRAI LU 1976-75425		19760721		
GI				



AB Storage-stable hair dye compns. contain dyes I (R = Me, OMe; R1 = H, Me, NH₂, NHAc, NHCONH₂, NHCO₂Et; R2, R5 = H, Me; R3, R4 = H, Me, Cl; R6 = H, NR₇R₈; R7 = H, Me, Et, CH₂CH₂OH; R8 = H, Me, Et, CH₂CH₂OH, CH₂CONH₂, CH₂CH₂NHSO₂Me) in anhydrous EtOH, Me₂CHOH, Me₃COH, HOCH₂CH₂OMe, HOCH₂CH₂Et, or HOCH₂CH₂OMe. Thus I (R = R₂ = Me, R₁ = NHAc, R₃ = Cl, R₄ = R₅ = H, R₆ = OH) [66612-10-0], 0.66, I (R = Me, R₁ = NHCONH₂, R₂ = R₄ = R₅ = H, R₃ = Cl, R₆ = OH) [59996-96-2] 0.13, and I (R = R₃ = Me, R₁ = NHAc, R₂ = R₄ = R₅ = H, R₆ = NEtCH₂CONH₂) [55303-63-4] 0.018 g was dissolved in EtOH to 100 mL to give a stable solution

IC A61K007-13

CC 62-3 (Essential Oils and Cosmetics)

ST hair dye benzoquinone imine

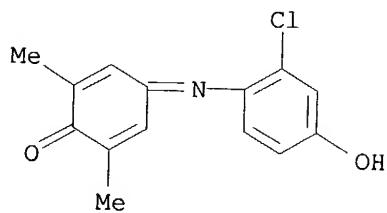
IT Hair preparations
(dyes, storage-stable, benzoquinone imines for)

IT 30168-81-1 30749-78-1 30749-80-5
30749-84-9 30810-03-8 33500-35-5 36635-96-8
52136-23-9 52136-25-1 52136-39-7 55302-67-5 55303-28-1
55303-40-7 55303-61-2 55303-63-4 55303-67-8 55366-68-2
56330-30-4 56330-67-7 56330-88-2 59996-96-2
66612-10-0 66612-11-1 66612-12-2 66612-13-3
66612-14-4 66612-15-5 66612-16-6 66612-17-7 66612-18-8
66612-19-9 66612-20-2 66612-21-3 66612-22-4
RL: BIOL (Biological study)
(storage-stable hair dye solution containing)

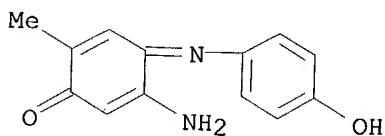
IT 30168-81-1 30749-78-1 30749-80-5
30749-84-9 36635-96-8 59996-96-2
66612-10-0 66612-11-1 66612-14-4
66612-22-4
RL: BIOL (Biological study)
(storage-stable hair dye solution containing)

RN 30168-81-1 HCPLUS

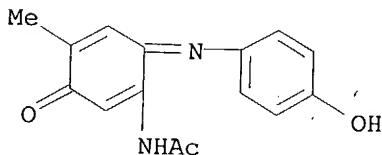
CN 2,5-Cyclohexadien-1-one, 4-[(2-chloro-4-hydroxyphenyl)imino]-2,6-dimethyl- (9CI) (CA INDEX NAME)



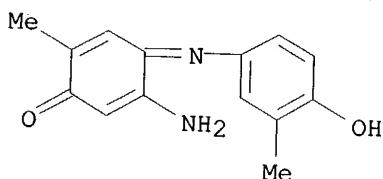
RN 30749-78-1 HCPLUS
CN 2,5-Cyclohexadien-1-one, 5-amino-4-[(4-hydroxyphenyl)imino]-2-methyl- (9CI) (CA INDEX NAME)



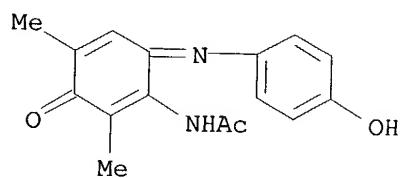
RN 30749-80-5 HCPLUS
CN Acetamide, N-[6-[(4-hydroxyphenyl)imino]-4-methyl-3-oxo-1,4-cyclohexadien-1-yl]- (9CI) (CA INDEX NAME)



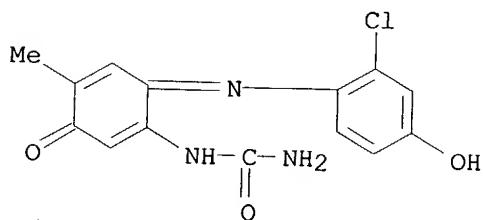
RN 30749-84-9 HCPLUS
CN 2,5-Cyclohexadien-1-one, 5-amino-4-[(4-hydroxy-3-methylphenyl)imino]-2-methyl- (9CI) (CA INDEX NAME)



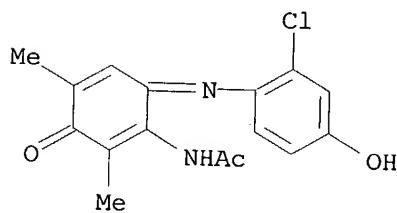
RN 36635-96-8 HCPLUS
CN Acetamide, N-[6-[(4-hydroxyphenyl)imino]-2,4-dimethyl-3-oxo-1,4-cyclohexadien-1-yl]- (9CI) (CA INDEX NAME)



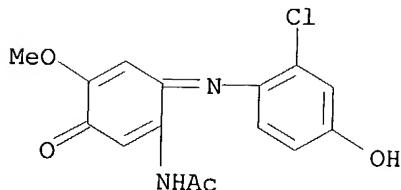
RN 59996-96-2 HCPLUS
CN Urea, [6-[(2-chloro-4-hydroxyphenyl)imino]-4-methyl-3-oxo-1,4-cyclohexadien-1-yl]- (9CI) (CA INDEX NAME)



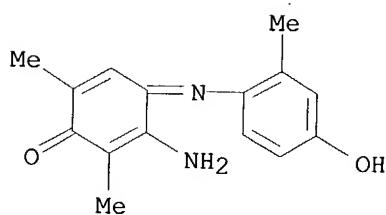
RN 66612-10-0 HCPLUS
CN Acetamide, N-[6-[(2-chloro-4-hydroxyphenyl)imino]-2,4-dimethyl-3-oxo-1,4-cyclohexadien-1-yl]- (9CI) (CA INDEX NAME)



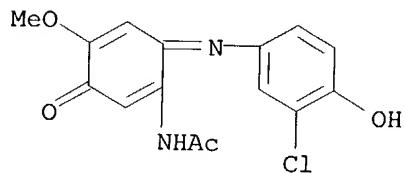
RN 66612-11-1 HCPLUS
CN Acetamide, N-[6-[(2-chloro-4-hydroxyphenyl)imino]-4-methoxy-3-oxo-1,4-cyclohexadien-1-yl]- (9CI) (CA INDEX NAME)



RN 66612-14-4 HCPLUS
CN 2,5-Cyclohexadien-1-one, 3-amino-4-[(4-hydroxy-2-methylphenyl)imino]-2,6-dimethyl- (9CI) (CA INDEX NAME)



RN 66612-22-4 HCPLUS
 CN Acetamide, N-[6-[(3-chloro-4-hydroxyphenyl)imino]-4-methoxy-3-oxo-1,4-cyclohexadien-1-yl]- (9CI) (CA INDEX NAME)

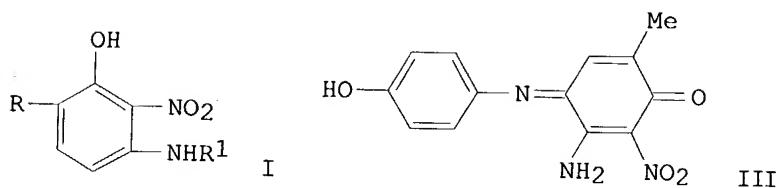


L84 ANSWER 39 OF 44 HCPLUS COPYRIGHT 2004 ACS on STN
 AN 1977:486346 HCPLUS
 DN 87:86346
 TI Nitro couplers used in direct, oxidation, and mixed dyes for keratin fiber
 IN Ormancey, Andree; Procajlo, Ginette
 PA Oreal S. A., Fr.
 SO Fr. Demande, 63 pp.
 CODEN: FRXXBL
 DT Patent
 LA French
 FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	FR 2315256	A1	19770121	FR 1975-20155	19750626
	FR 2315256	B1	19790323		
	BE 843417	A1	19761227	BE 1976-168319	19760625
	NL 7606948	A	19761228	NL 1976-6948	19760625
	NL 182534	B	19871102		
	NL 182534	C	19880405		
	JP 52003836	A2	19770112	JP 1976-75408	19760625
	JP 62034752	B4	19870728		
	DE 2628716	A1	19770120	DE 1976-2628716	19760625
	DE 2628716	C2	19880616		
	AT 7604675	A	19781215	AT 1976-4675	19760625
	AT 351171	B	19790710		
	AU 498883	B2	19790329	AU 1976-15303	19760625
	GB 1544127	A	19790411	GB 1976-26586	19760625
	CH 618343	A	19800731	CH 1976-8202	19760625
	CA 1088066	A1	19801021	CA 1976-255711	19760625
	DE 2661057	C2	19880804	DE 1976-2661057	19760625
	AT 7706872	A	19790515	AT 1977-6872	19770926
	AT 353975	B	19791210		
	CH 621537	A	19810213	CH 1979-10840	19791206
	CA 1089857	A2	19801118	CA 1979-341780	19791213

US 4330291	A	19820518	US 1980-127461	19800305
US 4473374	A	19840925	US 1982-351300	19820222
PRAI FR 1975-20155		19750626		
FR 1975-34208		19751107		
US 1976-698126		19760621		
AT 1976-4675		19760625		
CA 1976-255711		19760625		
CH 1976-8202		19760625		
US 1980-127461		19800305		

GI



AB 3-Amino-2-nitrophenols (I, R = Me, Cl; R1 = H, CH₂CH₂OH, Me, COMe, CO₂Et, 2-piperidinoethyl) were prepared, treated with aniline derivs. to form benzoquinoneimine derivs., and were used as direct **hair** dyes and as couplers in oxidative **hair** dyeing compns. Thus, 4,3-Me(OH)C₆H₃NHAc [5307-07-3] was successively nitrated and hydrolyzed to give I (R = Me, R1 = H) (II) [62106-30-3]. Reaction of II with 4-H₂NC₆H₄OH [123-30-8] in the presence of persulfate gave III [62106-39-2]. The use of II in direct and as a coupler in oxidative dyeing of **hair** is illustrated.

IC A61K007-13

CC 40-9 (Dyes, Fluorescent Whitening Agents, and Photosensitizers)
Section cross-reference(s): 62

ST aminonitrophenol hair dye; nitrophenol hair dye; coupler aminonitrophenol hair dye; indophenol hair dye

IT Hair

(dyes for, aminonitrophenol derivs. as)

IT 62106-29-0 62106-33-6

RL: RCT (Reactant); RACT (Reactant or reagent)
(hydrolysis of)

IT 5307-07-3 28443-52-9

RL: RCT (Reactant); RACT (Reactant or reagent)
(nitration of)

IT 62106-35-8P

RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)

IT 62106 27 67 (preparat

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT

(Reactant or
/propanate)

(preparation and reaction with hydrobromic acid)
2106-38-1B

L: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

Reactant 8F
(preparation)

(preparation and reaction with piperidine)
2106-31-4P

KATHLEEN FULLER EIC 1700 REMSEN 4B28 571/272-2505

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 IT 62106-30-3P (preparation and reaction with potassium hydroxide)

RL: IMF (Industrial manufacture); PREP (Preparation)
 IT 62106-32-5P 62106-36-9P 62106-39-2P 62106-40-5P 62106-41-6P
 62106-42-7P 62106-43-8P 62106-44-9P 62106-45-0P 62106-46-1P
 62106-47-2P 62106-48-3P 62106-49-4P 62106-50-7P 63719-68-6P
 63719-69-7P 63719-72-2P

RL: IMF (Industrial manufacture); PREP (Preparation)
 IT 110-89-4, reactions (preparation of)

RL: RCT (Reactant); RACT (Reactant or reagent)
 IT 123-30-8 2628-69-5 52131-94-9 52671-64-4 56331-44-3 56496-88-9
 57240-10-5 62106-52-9 63719-70-0 63719-71-1

RL: RCT (Reactant); RACT (Reactant or reagent)
 IT 627-11-2 (reaction of, with aminonitrophenol derivative)

RL: RCT (Reactant); RACT (Reactant or reagent)
 IT (reaction of, with aminophenol derivative)

L84 ANSWER 40 OF 44 HCAPLUS COPYRIGHT 2004 ACS on STN
 AN 1977:127101 HCAPLUS
 DN 86:127101

TI Nitrated coupler for use in direct, oxidation and mixed hair colorings
 IN Bugaut, Andree; Jeanminet, Ginette

PA Oreal S. A., Fr.

SO Ger. Offen., 97 pp.

CODEN: GWXXBX

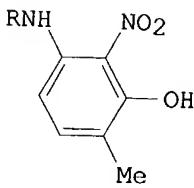
DT Patent

LA German

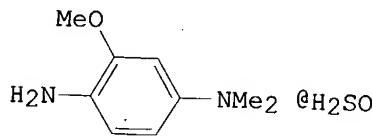
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 2628716	A1	19770120	DE 1976-2628716	19760625
	DE 2628716	C2	19880616		
	FR 2315256	A1	19770121	FR 1975-20155	19750626
	FR 2315256	B1	19790323		
	FR 2330673	A1	19770603	FR 1975-34208	19751107
	FR 2330673	B1	19790504		
PRAI	FR 1975-20155		19750626		
	FR 1975-34208		19751107		

GI



I, R=H
 II, R=CO2Et



III

AB Compns. for coloring hair by either oxidation or direct dyeing or a combination of the 2 processes have pH 5-11, and comprise 0.002-2% of at least one 2-nitro-3-aminophenol derivative coupler, 0-2% of at least one aniline derivative oxidation base, ≤20% surfactant, and an aqueous or aqueous-alc.

carrier containing ≤40% glycol or alkanol. For example, 100 g 2-methyl-5-acetylaminophenol [5307-07-3] was nitrated and the 94 g 2-methyl-6-nitro-5-acetylaminophenol [62106-29-0] formed was deacetylated to give 45 g 2-methyl-5-amino-6-nitrophenol (I) [62106-30-3]. I (16.8 g) was dissolved in 30 cm³ dioxane and heated with Et chloroformate [541-41-3] in the presence of CaCO₃ to give 2-methyl-5-carbethoxyamino-6-nitrophenol (II) [62106-36-9]. A mixture of 2 g II, 20 g polymerized lauryl alc., containing 10.5 mol. ethylene oxide, enough H₂O to give 100 g, and enough NH₃ to give pH 9 dyed bleached hair a rose apricot color. A 2nd dye composition contained 2.5 g I, 0.3 g 6-hydroxyphenylmorpholine, 0.3 g 3-methoxy-4-amino-N,N-dimethylaniline sulfate (III) [55303-08-7] and 1.5 g 2,6-dimethyl-4-aminophenol-HCl [10486-48-3] oxidation bases, 30 g propylene glycol, 7 g polymerized nonylphenol containing 4 mol. ethylene oxide, 7 g polymerized

nonylphenol containing 9 mol. ethylene oxide, and H₂O to give 100 g. The composition was adjusted to pH 10 by addition of NH₃, and H₂O₂ was added just before use. The composition dyed naturally white hair an ash beige color. Water-waving dye lotions were also prepared

IC C07C087-60

CC 62-3 (Essential Oils and Cosmetics)
Section cross-reference(s): 25, 40

ST hair dye aminophenol deriv

IT Hair preparations

(dyes, nitroaminophenol derivs. and aniline derivs. in)

IT 2442-80-0 26878-35-3 41316-84-1 42965-55-9 57838-73-0

RL: BIOL (Biological study)

(for hair dyes)

IT 92-09-1 536-46-9 591-27-5 615-45-2 615-66-7 2172-32-9
3096-71-7 5395-70-0 10323-68-9 10486-48-3 14090-03-0 15980-22-0
46409-67-0 54381-16-7 55302-94-8 55303-07-6 55303-08-7
56331-21-6 56331-23-8 56331-26-1 56331-30-7 56331-34-1
56331-39-6 56331-42-1 56331-43-2 56357-59-6 56496-88-9
62106-53-0

RL: BIOL (Biological study)

(in hair dyes)

IT 5307-07-3 28443-52-9

RL: RCT (Reactant); RACT (Reactant or reagent)

(nitration of)

IT 62106-29-0P 62106-33-6P

RL: RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)

(preparation and deacetylation of)

IT 62106-31-4P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and decarboxylation of)

IT 62106-38-1P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and reaction with piperidine)

IT 62106-30-3P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and reactions of, in hair dye processes)

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (preparation and ring opening of)

IT 62106-32-5P 62106-34-7P 62106-35-8P 62106-36-9P

RL: PREP (Preparation)
 (preparation of, as hair dye coupler)

IT 62106-39-2P 62106-40-5P 62106-41-6P 62106-42-7P
 62106-43-8P 62106-44-9P 62106-45-0P 62106-46-1P 62106-47-2P
 62106-48-3P 62106-49-4P 62106-50-7P

RL: PREP (Preparation)
 (preparation of, for hair dyes)

IT 62106-52-9

RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction of, with chloroaminonitrophenol)

IT 123-30-8 541-41-3 627-11-2 2628-69-5 52131-94-9 52671-64-4
 56331-28-3 56331-44-3 56496-88-9 57240-10-5 62106-51-8

RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction of, with methylaminonitrophenol)

IT 110-89-4, reactions

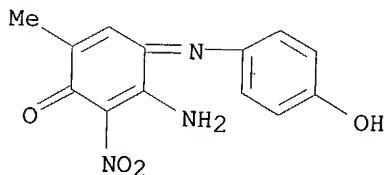
RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction of, with methylbromoethylaminonitrophenol)

IT 62106-39-2P 62106-40-5P

RL: PREP (Preparation)
 (preparation of, for hair dyes)

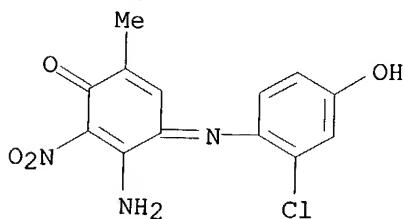
RN 62106-39-2 HCPLUS

CN 2,5-Cyclohexadien-1-one, 3-amino-4-[(4-hydroxyphenyl)imino]-6-methyl-2-nitro- (9CI) (CA INDEX NAME)



RN 62106-40-5 HCPLUS

CN 2,5-Cyclohexadien-1-one, 3-amino-4-[(2-chloro-4-hydroxyphenyl)imino]-6-methyl-2-nitro- (9CI) (CA INDEX NAME)



L84 ANSWER 41 OF 44 HCPLUS COPYRIGHT 2004 ACS on STN
 AN 1974:429470 HCPLUS
 DN 81:29470
 TI Dye lyophilizate for coloring human hair
 IN Ghilardi, Giuliana; Bore, Pierre; Grollier, Jean F.
 PA Oreal S. A.

SO Ger. Offen., 53 pp.

CODEN: GWXXBX

DT Patent

LA German

FAN.CNT 4

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 2332156	A1	19740117	DE 1973-2332156	19730625
	FR 2190407	A1	19740201	FR 1973-23160	19730625
	GB 1402051	A	19750806	GB 1973-29982	19730625
	US 3981676	A	19760921	US 1973-372933	19730625
	CH 587054	A	19770429	CH 1973-9227	19730625
	CA 1009577	A1	19770503	CA 1973-174905	19730626
PRAI	LU 1972-65589		19720626		
	LU 1970-60449		19700303		
	LU 1970-61890		19701019		
	LU 1971-62596		19710215		
	US 1971-120353		19710302		
AB	Freeze-dried indamine, indoaniline, indophenol, and diaminobenzoquinone dyes for human hair are obtained from a solution of 1 or more organic solvents or their aqueous mixts. by freezing, subliming the product by heating in a vacuum at a temperature below the m.p. of the product, and desorbing the sublimate to expel residual combined liquid. The solns. contained fillers such as oligopeptides, polymerizates, mixed polymerizates, and protein hydrolysates. The resulting powder is put into solution immediately before used. Thus, a solution of 1 g N-(4-hydroxy-6-chloropenyl)-2,6-dimethylbenzoquinoneimine and 2 g poly(vinylpyrrolidinone) in tert-butyl alc., making 100 cm ³ , is cooled to -60°, lyophylized 12 hr starting at -40°, and desorbed 8 hr at 35°. The resulting powder (0.1 g) dissolves completely in EtOH in 15 sec whereas the same dye, obtained directly from its reaction mixture and sieved, is only 84% soluble				
IC	A61K				
CC	62-3 (Essential Oils and Cosmetics)				
ST	hair dye lyophilization soly; indamine hair dye lyophilization; indoaniline hair dye lyophilization; indophenol hair dye lyophilization; benzoquinone hair dye lyophilization				
IT	Hair				
	(dyes for, freeze drying for solubility and stability)				
IT	Dyes				
	(freeze drying of hair, for solubility and stability)				
IT	Freeze drying				
	(of hair dyes, for solubility and stability)				
IT	2,5-Cyclohexadiene-1,4-dione, 2,5-diamino-, derivs.				
RL:	PROC (Process)				
	(freeze drying of, for soluble and stable hair dyes)				
IT	2,5-Cyclohexadien-1-one, 4-[(4-aminophenyl)imino]-, derivs.				
	2,5-Cyclohexadien-1-one, 4-[(4-hydroxyphenyl)imino]-, derivs.				
RL:	PROC (Process)				
	(freeze drying of, for soluble and stable hair dyes)				
IT	Acetamide, N-[2-[(4-[(2-amino-4-imino-5-methoxy-2,5-cyclohexadien-1-ylidene)amino]phenyl)ethylamino]ethyl]-, zinc complexes				
	Zinc, with N-[(4'-ethylacetylaminooethylamino)phenyl]-3-amino-6-methoxybenzoquinonedimine				
RL:	PROC (Process)				
	(freeze drying of, for soluble hair dyes)				
IT	1,4-Benzenediamine, N-(4-imino-2,5-cyclohexadien-1-ylidene)-, derivs.				
RL:	PROC (Process)				
	(freeze drying of, for soluble stable hair dyes)				
IT	30168-81-1 30749-78-1 30749-80-5 30749-86-1				

30809-96-2 30809-98-4 30810-00-5 30810-03-8 31634-45-4
 31634-46-5 33500-50-4 35940-79-5 **36635-96-8** 52136-21-7
 52136-25-1 52636-10-9 52636-12-1 52636-13-2 52636-15-4
 52636-17-6

RL: PROC (Process)

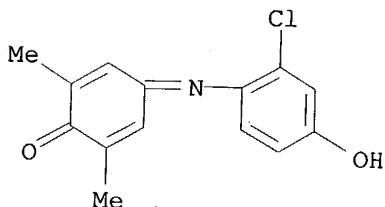
(freeze drying of, for soluble hair dyes)

IT 30168-81-1 30749-78-1 30749-80-5
36635-96-8

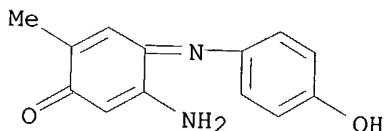
RL: PROC (Process)

(freeze drying of, for soluble hair dyes)

RN 30168-81-1 HCPLUS

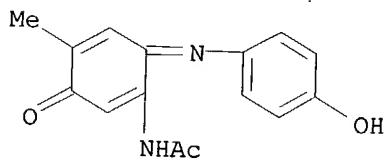
CN 2,5-Cyclohexadien-1-one, 4-[(2-chloro-4-hydroxyphenyl)imino]-2,6-dimethyl-
 (9CI) (CA INDEX NAME)

RN 30749-78-1 HCPLUS

CN 2,5-Cyclohexadien-1-one, 5-amino-4-[(4-hydroxyphenyl)imino]-2-methyl-
 (9CI) (CA INDEX NAME)

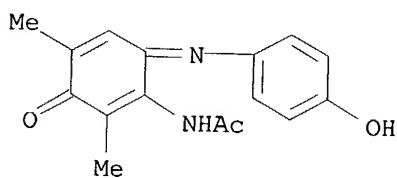
RN 30749-80-5 HCPLUS

CN Acetamide, N-[6-[(4-hydroxyphenyl)imino]-4-methyl-3-oxo-1,4-cyclohexadien-1-yl]- (9CI) (CA INDEX NAME)



RN 36635-96-8 HCPLUS

CN Acetamide, N-[6-[(4-hydroxyphenyl)imino]-2,4-dimethyl-3-oxo-1,4-cyclohexadien-1-yl]- (9CI) (CA INDEX NAME)



L84 ANSWER 42 OF 44 HCAPLUS COPYRIGHT 2004 ACS on STN
 AN 1974:124583 HCAPLUS
 DN 80:124583
 TI Dye lyophilizates for hair dyeing
 IN Ghilardi, Giuliana; Bore, Pierre; Grollier, Jean F.
 PA Oreal
 SO Ger. Offen., 21 pp. Addn. to Ger. Offen. 2,109,850 (CA 75;154920k).
 CODEN: GWXXBX

DT Patent
 LA German
 FAN.CNT 4

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 2332157	A1	19740117	DE 1973-2332157	19730625
	NL 7308790	A	19731228	NL 1973-8790	19730625
	FR 2197950	A2	19740329	FR 1973-23161	19730625
	JP 49052825	A2	19740522	JP 1973-71604	19730625
	GB 1388240	A	19750326	GB 1973-29981	19730625
	CH 572964	A	19760227	CH 1973-9228	19730625
	US 3981678	A	19760921	US 1973-372934	19730625
	CA 998208	A1	19761012	CA 1973-174989	19730625
PRAI	LU 1972-65590		19720626		19730626
	LU 1970-60449		19700303		
	LU 1970-61890		19701019		
	LU 1971-62596		19710215		
	US 1971-120353		19710302		

GI For diagram(s), see printed CA Issue.
 AB Reaction mixts. for dye lyophilizates of high sp. surface and useful for hair dyeing contained couplers and bases for oxidative dye formation and organic solvents. e.g., dioxane (I), to maintain a homogeneous-phase oxidation. Thus, a solution of 10 ml 20% NH4OH, p-(H2N)2C6H4 0.108, 2,6-xylenol 0.122, poly(vinylpyrrolidinone) 5, I 40, 30% H2O2 26.6, and H2O balance to 100 g was kept 30 min in the air, 0.1N KMnO4 added for H2O2 removal, the mixture filtered, cooled 1 hr at -60°, and lyophilized to give a II lyophilizate.
 IC C09B; A61K
 CC 62-3 (Essential Oils and Cosmetics)
 Section cross-reference(s): 40
 ST dye lyophilizate hair; oxidn dye lyophilizate hair; dioxane oxidn dye lyophilizate
 IT Dyes
 (benzoquinonimine derivative lyophilizates, for hair)
 IT Hair
 (dyes for, benzoquinonimine derivative lyophilizates)
 IT 29807-67-8 30749-86-1 52432-85-6
 RL: BIOL (Biological study)
 (hair dye lyophilizate)
 IT 614-94-8
 RL: RCT (Reactant); RACT (Reactant or reagent)

IT 576-26-1
 (reaction of, with aminophenol)
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction of, with diamines)

IT 123-30-8
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction of, with diaminoanisole dihydrochloride)

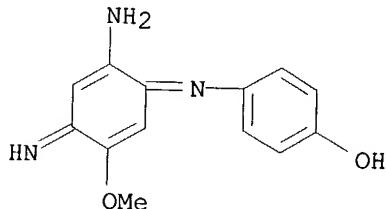
IT 14090-03-0
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction of, with xlenol)

IT 106-50-3, reactions
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (with xlenol)

IT 52432-85-6
 RL: BIOL (Biological study)
 (hair dye lyophilizate)

RN 52432-85-6 HCPLUS

CN Phenol, 4-[(2-amino-4-imino-5-methoxy-2,5-cyclohexadien-1-ylidene)amino]-
 (9CI) (CA INDEX NAME)



L84 ANSWER 43 OF 44 HCPLUS COPYRIGHT 2004 ACS on STN
 AN 1973:149221 HCPLUS
 DN 78:149221
 TI Halogenated indophenol dye for human hair
 IN Kalopissis, Gregoire; Bugaut, Andree; Estradier, Francoise
 PA Oreal S. A.
 SO Ger. Offen., 39 pp.
 CODEN: GWXXBX
 DT Patent
 LA German
 FAN.CNT 4

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 2237270	A1	19730208	DE 1972-2237270	19720728
	US 3894837	A	19750715	US 1972-275463	19720727
	NL 7210417	A	19730201	NL 1972-10417	19720728
	FR 2148103	A1	19730316	FR 1972-27454	19720728
	GB 1354645	A	19740530	GB 1972-35479	19720728
	CH 554675	A	19741015	CH 1972-11269	19720728
	CA 986529	A1	19760330	CA 1972-148246	19720728
	AT 7206507	A	19760515	AT 1972-6507	19720728
	AT 334541	B	19760125		
	SE 403126	C	19781109	SE 1972-9917	19720728
	ES 405368	A1	19750701	ES 1972-405368	19720729
	AU 7245136	A1	19740207	AU 1972-45136	19720731
PRAI	LU 1971-63641		19710730		
	LU 1969-58954		19690625		

US 1970-49905 19700625
 US 1970-100433 19701221

AB Halogenated indophenol dyes (I, R = H, Cl, Br, R1 = Me, Cl, tert-butyl, R2 = H, Me, n = 0, 1, 2) were prepared and were used to dye hair from H₂O, H₂O-alc., and waving solns. containing cosmetic resins. Thus, 2,6-Me₂C₆H₃OH in NH₄OH-Me₂CO solution was condensed with 3,4-Cl(H₂N)C₆H₃OH to give indophenol dye I (R = 2-chloro, R1, R2 = 3,5-di-Me) [30168-81-1] and when incorporated into a H₂O-alc. mixture adjusted to pH 8 with NH₄OH, it was used to dye hair beige with a reddish luster. The other I were similarly prepared

IC C09B

CC 62-3 (Essential Oils and Cosmetics)

ST halogenated indophenol dye; hair dye

IT Hair
 (dyes for, haloindophenols as)

IT Dyes
 (haloindophenols, for hair)

IT 30168-80-0 30168-81-1 30749-86-1 31634-45-4
 41349-88-6 41349-89-7 41349-90-0
 41349-91-1 41349-93-3 41349-94-4
 41349-95-5 41349-96-6 41349-97-7
 41349-98-8 41350-01-0 41350-02-1
 41350-03-2

RL: USES (Uses)
 (dyes, for hair)

IT 95-57-8 108-39-4 108-43-0 128-39-2
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction of, with (chloroimino)(chloro)cyclohexadienone)

IT 95-87-4 526-75-0 576-26-1
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction of, with aminohalophenols)

IT 51-78-5 41350-07-6
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction of, with chlorophenol)

IT 609-21-2
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction of, with dimethylphenol)

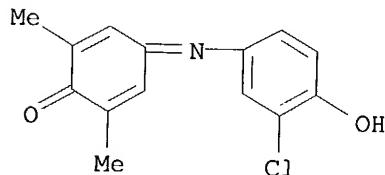
IT 7248-09-1 17609-80-2 41350-06-5
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction of, with phenols)

IT 30168-80-0 30168-81-1 41349-88-6
 41349-89-7 41349-90-0 41349-91-1
 41349-93-3 41349-94-4 41349-95-5
 41349-96-6 41349-97-7 41349-98-8
 41350-01-0 41350-02-1 41350-03-2

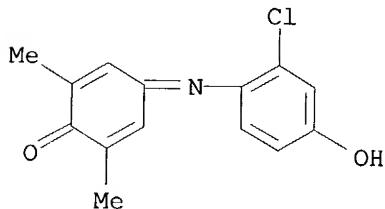
RL: USES (Uses)
 (dyes, for hair)

RN 30168-80-0 HCPLUS

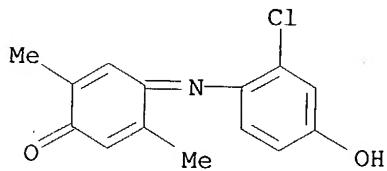
CN 2,5-Cyclohexadien-1-one, 4-[(3-chloro-4-hydroxyphenyl)imino]-2,6-dimethyl- (9CI) (CA INDEX NAME)



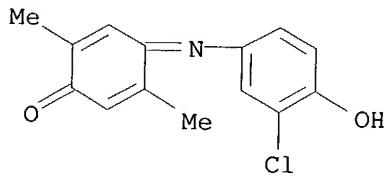
RN 30168-81-1 HCAPLUS
CN 2,5-Cyclohexadien-1-one, 4-[(2-chloro-4-hydroxyphenyl)imino]-2,6-dimethyl-
(9CI) (CA INDEX NAME)



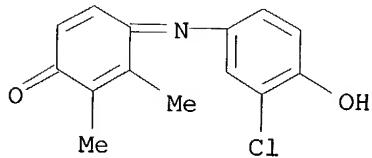
RN 41349-88-6 HCAPLUS
CN 2,5-Cyclohexadien-1-one, 4-[(2-chloro-4-hydroxyphenyl)imino]-2,5-dimethyl-
(9CI) (CA INDEX NAME)



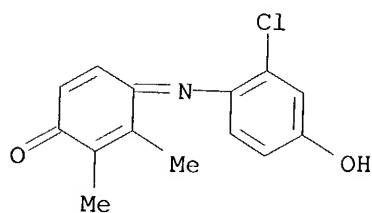
RN 41349-89-7 HCAPLUS
CN 2,5-Cyclohexadien-1-one, 4-[(3-chloro-4-hydroxyphenyl)imino]-2,5-dimethyl-
(9CI) (CA INDEX NAME)



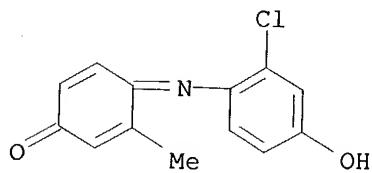
RN 41349-90-0 HCAPLUS
CN 2,5-Cyclohexadien-1-one, 4-[(3-chloro-4-hydroxyphenyl)imino]-2,3-dimethyl-
(9CI) (CA INDEX NAME)



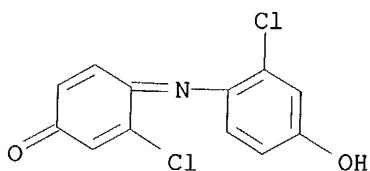
RN 41349-91-1 HCAPLUS
CN 2,5-Cyclohexadien-1-one, 4-[(2-chloro-4-hydroxyphenyl)imino]-2,3-dimethyl-
(9CI) (CA INDEX NAME)



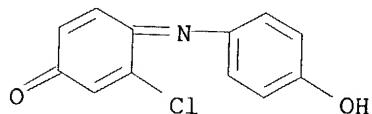
RN 41349-93-3 HCAPLUS
CN 2,5-Cyclohexadien-1-one, 4-[(2-chloro-4-hydroxyphenyl)imino]-3-methyl- (9CI) (CA INDEX NAME)



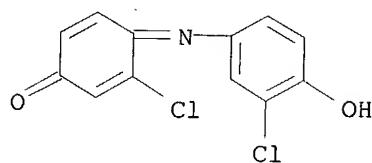
RN 41349-94-4 HCAPLUS
CN 2,5-Cyclohexadien-1-one, 3-chloro-4-[(2-chloro-4-hydroxyphenyl)imino]- (9CI) (CA INDEX NAME)



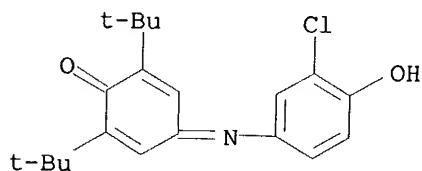
RN 41349-95-5 HCAPLUS
CN 2,5-Cyclohexadien-1-one, 3-chloro-4-[(4-hydroxyphenyl)imino]- (9CI) (CA INDEX NAME)



RN 41349-96-6 HCAPLUS
CN 2,5-Cyclohexadien-1-one, 3-chloro-4-[(3-chloro-4-hydroxyphenyl)imino]- (9CI) (CA INDEX NAME)

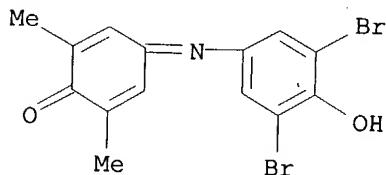


RN 41349-97-7 HCAPLUS
CN 2,5-Cyclohexadien-1-one, 4-[(3-chloro-4-hydroxyphenyl)imino]-2,6-bis(1,1-dimethylethyl)-, potassium salt (9CI) (CA INDEX NAME)

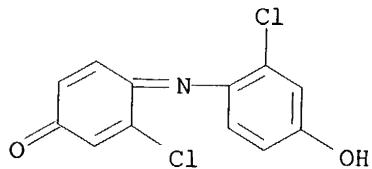


● K

RN 41349-98-8 HCAPLUS
CN 2,5-Cyclohexadien-1-one, 4-[(3,5-dibromo-4-hydroxyphenyl)imino]-2,6-dimethyl- (9CI) (CA INDEX NAME)

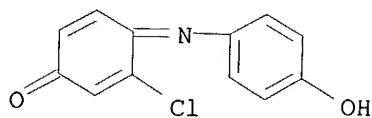


RN 41350-01-0 HCAPLUS
CN 2,5-Cyclohexadien-1-one, 3-chloro-4-[(2-chloro-4-hydroxyphenyl)imino]-, sodium salt (9CI) (CA INDEX NAME)



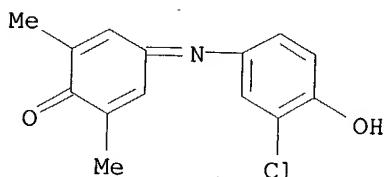
● Na

RN 41350-02-1 HCAPLUS
CN 2,5-Cyclohexadien-1-one, 3-chloro-4-[(4-hydroxyphenyl)imino]-, sodium salt (9CI) (CA INDEX NAME)



● Na

RN 41350-03-2 HCPLUS
CN 2,5-Cyclohexadien-1-one, 4-[(3-chloro-4-hydroxyphenyl)imino]-2,6-dimethyl-, ammonium salt (9CI) (CA INDEX NAME)



● NH₃

L84 ANSWER 44 OF 44 HCPLUS COPYRIGHT 2004 ACS on STN
AN 1972:541487 HCPLUS
DN 77:141487
TI Indophenols as hair dyes
IN Kalopissis, Gregoire; Bugaut, Andree; Estradier, Francoise
PA Oreal S. A.

SO Ger. Offen., 26 pp.
CODEN: GWXXBX

DT Patent
LA German

FAN.CNT 4

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 2163636	A	19720706	DE 1971-2163636	19711221
	IT 1027008	A	19781120	IT 1971-69522	19710727
	NL 7112460	A	19720623	NL 1971-12460	19710910
	NL 176634	B	19841217		
	NL 176634	C	19850517		
	BE 776985	A4	19720620	BE 1971-111927	19711220
	US 3894837	A	19750715	US 1972-275463	19720727
	US 3884625	A	19750520	US 1973-336531	19730228
PRAI	US 1970-100433		19701221		
	LU 1969-58954		19690625		
	BE 1970-752381		19700623		
	US 1970-49905		19700625		
	LU 1971-63641		19710730		
AB	Seven indophenols (I; R = H or Ac; R ₁ , R ₂ , R ₃ = H or Me; R ₄ = H or Cl), dyes for human hair, were prepared by condensing p-aminophenols or				

N-chloro-p-benzoquinone imines with phenols. For example, aqueous (NH₄)₂S₂O₈ was added to p-H₂NC₆H₄OH and 2,6,3-Me₂(AcNH)C₆H₂OH in aqueous Me₂CO containing NH₄OH with cooling and the mixture kept 20 min at room temperature to give a dye

(I; R = Ac, R₁ = R₂ = Me, R₃ = R₄ = H) (II) [36635-96-8]. An aqueous-alc. solution containing II and NH₄OH to pH 10 dyed bleached hair a pale golden blond shade.

IC A61K

CC 40-9 (Dyes, Fluorescent Whiteners, and Photosensitizers)
Section cross-reference(s): 62

ST indophenol hair dye; benzoquinone imine dye

IT Hair

(dyes for, indophenol derivs. as)

IT Dyes

(indophenol derivs., for hair)

IT 36635-96-8P 38842-57-8P 38842-58-9P 38842-59-0P 38842-60-3P
38842-61-4P 38842-62-5P

RL: IMF (Industrial manufacture); PREP (Preparation)
(preparation of)

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